The Postal Service Role in the Digital Age
Part 2: Expanding the Postal Platform

April 19, 2011

The Postal Service Role in the Digital Age
Part 2: Expanding the Postal Platform

Executive Summary

The Internet and the digital revolution are fundamentally changing the worlds of communications and commerce. The digital economy continues to grow at a rapid rate. Electronic substitution of traditional mail is accelerating as both consumers and businesses adopt electronic processes across multiple domains. Mail users are shifting from traditional hard copy distribution models to a variety of new ways to digitally communicate, advertise, or transact. They are attracted to greater convenience, faster service, and lower cost. The digital revolution has become the "disruptive innovation"[1] to the traditional business of the U.S. Postal Service. With several different communications channels competing for consumers, the Postal Service needs to modernize its role to accommodate for the digital age.
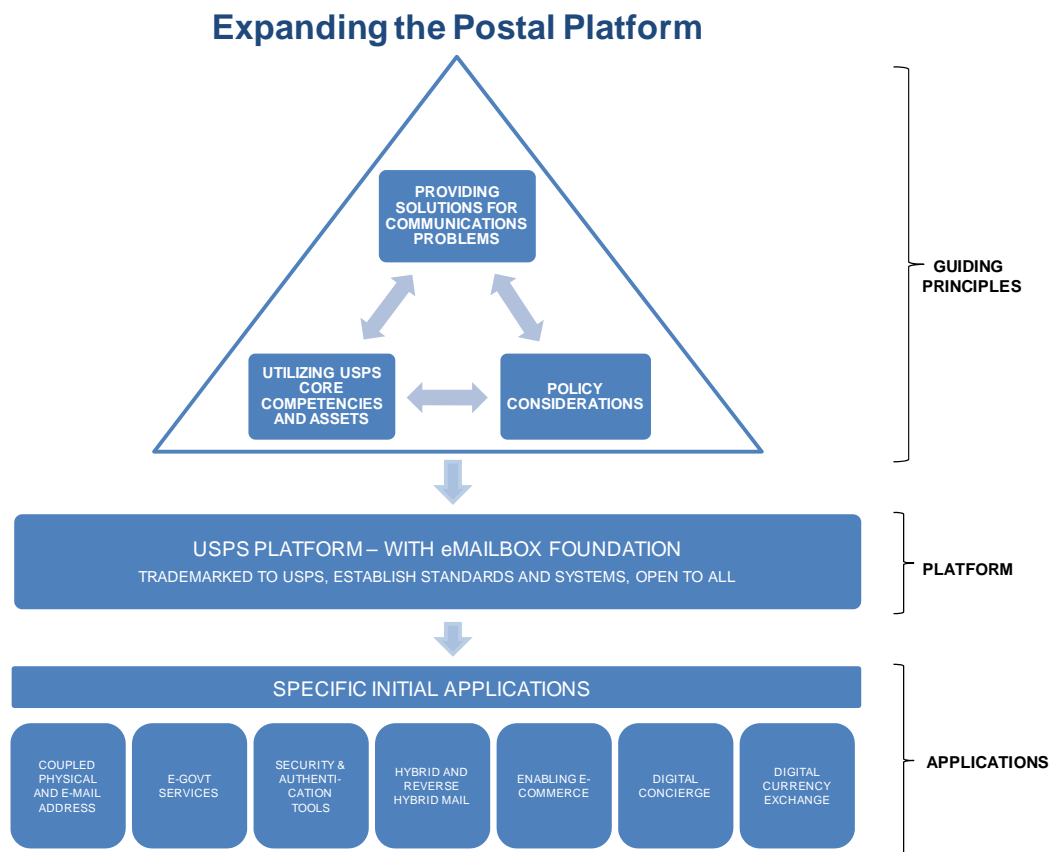
The transition to a new digital landscape is already under way, but the path forward is undefined. The Postal Service should consider new products and services that reflect the evolving mandate to "bind the nation together" in a new world where people are increasingly communicating digitally. Using a foundation that links a physical address to an electronic mail box for every citizen and business, the Postal Service can build a digital platform that facilitates communications and commerce for postal, governmental, and commercial applications that are available to all.

The U.S. Postal Service Office of Inspector General Risk Analysis Research Center (RARC) has initiated a project to study the impact of the digital revolution on the future of the American postal ecosystem. This paper is the second in a series. The first paper described the radical changes affecting communications and commerce, identified trends, and discussed the impacts. This sequel identifies a set of applications the Postal Service should explore as a first step in redefining its mandated role of "binding the nation together." While there is no indicator of how much of our communications and commerce will go digital, the migration is nonetheless creating a lengthening tail of digital refugees, which will only increase as the digital revolution progresses.

The conceptual framework depicted in the diagram on the next page constructs a strategic positioning for the Postal Service to consider. The framework is developed in response to three guiding principles:

- Providing solutions for the communications problems of the digital age.

- Utilizing the core competencies and assets of the Postal Service.

- Pursuing applications that are considered proper for the Postal Service.

---

[1] Clayton M. Christensen, *The Innovator's Dilemma* (Boston: Harvard Business Press, 1997).

Expanding the Postal Platform

```
                    GUIDING
                    PRINCIPLES

         PROVIDING
         SOLUTIONS FOR
         COMMUNICATIONS
         PROBLEMS

   UTILIZING USPS              POLICY
   CORE                        CONSIDERATIONS
   COMPETENCIES
   AND ASSETS
```

USPS PLATFORM – WITH eMAILBOX FOUNDATION
TRADEMARKED TO USPS, ESTABLISH STANDARDS AND SYSTEMS, OPEN TO ALL

PLATFORM

SPECIFIC INITIAL APPLICATIONS

APPLICATIONS

| COUPLED PHYSICAL AND E-MAIL ADDRESS | E-GOVT SERVICES | SECURITY & AUTHENTI-CATION TOOLS | HYBRID AND REVERSE HYBRID MAIL | ENABLING E-COMMERCE | DIGITAL CONCIERGE | DIGITAL CURRENCY EXCHANGE |

The Guiding Principles

Given the broad array of applications, we present three guiding principles to help the Postal Service in constructing a strategy:

1. Explore applications that provide solutions to communications problems of the digital age:

   ▪ The Internet and all of its functionality are not readily available to all citizens, some of whom lack skills or bandwidth access, to reap its full benefits.

   ▪ There is a potential threat to equal and fair access to the Internet.

   ▪ There remain inadequate levels of privacy, confidentiality, dependability, and security in digital communications and financial transactions as desired by citizens as well as a risk of involuntary profiling.

   ▪ The digital infrastructure has a fragility, a susceptibility to viruses, and interruptions in service, and is provided by companies that could fail or quickly face obsolescence.

- Consumers are experiencing an information overload with an increasing volume of electronic communications and applications as well as a lack of tools to manage it.

- There is still insufficient availability of affordable digital currency exchanges.

- Limited choice, or total elimination of the physical option, is an issue as companies and governments push consumers into digital-only communications and transactions.

2. Explore applications that utilize the core competencies and assets of the Postal Service, which has:

- A history of acting as a trusted intermediary.

- A position of legal standing for postal communications in the courts and government, ensuring that their content remains private.

- Experience in developing and running a national address management database.

- A critical mass of customers, including both businesses and consumers.

- Skill in facilitating communications, especially in the first mile (collecting from the sender) and last mile (delivering to the recipient).

- An effective tradition and experience in being the last resort provider.

- A neutral arbiter providing products and services at the lowest combined cost.

- A multichannel infrastructure of points of sales and services (retail, collection, and delivery) distinguished by comprehensive national coverage.

- Experience with currency transactions, both domestic and international.

3. Pursue applications that are considered proper for the Postal Service. The following questions help make such a determination:

- Is the opportunity in the public interest, linking a wide array of business sectors to the American public?

- Is the opportunity appropriate for the Postal Service?

- Is the opportunity needed to assure the Universal Service Obligation (USO)?

- Would a change in policy be required?

The Postal Service Enters the Digital Space

First, the Postal Service should develop a foundation of a permanent one-to-one linkage between a physical address and an electronic address available to every citizen and business. The Postal Service would also establish this "eMailbox" to serve as a digital counterpart to the physical mailbox.

Second, the Postal Service can develop and maintain a secure digital postal platform, accessible to all citizens through a website. Private industry would be invited to provide commercial solutions and work with the Postal Service on developing effective postal and governmental applications on the platform to serve all. The Postal Service can fill its established role of providing a trusted communications infrastructure. This represents a modern manifestation and a natural extension of its traditional mandate in the physical space to meet the new requirements of the digital age.

Apple's strategy of encouraging independent development of applications or "apps" for its iPhone® and iPad® platforms would serve as a relevant model for independent development of digital products on the postal platform. Apple invites all developers to bring their applications to its online App Store, as long as they meet the required technical and content standards. The Postal Service identifies the standards to allow innovation and allows market forces to determine success and failure.

Third, the Postal Service could develop on that platform seven initial applications that adhere to the guiding principles mentioned previously. In addition to the eMailbox with the physical-digital address linkage, the others include:

- An eGovernment application that promotes the further expansion of government services through the postal platform and utilizes the eMailbox to send and receive secure and official communication with federal agencies. This could be paired with physical kiosks (connected to government department call centers) at Post Offices where needed.

- Tools for identity validation, privacy protection, and transaction security that allow users to verify the individuals and businesses with whom they are communicating and ensure the safety of their personal information and security of their purchases and financial transactions.

- Hybrid and reverse hybrid mail that allow senders and receivers to convert digital documents to physical, and physical documents to digital. This hybrid solution could foster a healthy symbiotic relationship between printed and digital communications and help elevate the value of both media.

- Enhancing services for the shipping and delivery of secure online purchases through flexible pick-up and delivery options, expanded payment choices, and a cost calculation that includes all charges and fees for purchases (even international) at the time of sale.

- Digital concierge services that utilize the eMailbox to integrate an individual's physical and digital communications in a single place to manage the "information overflow," as well serving as a curator offering a type of secure "lock box" for important communications and other personal documents (such as medical records and wills) that can be accessed quickly when needed.

- Develop a network to buy and redeem cash and digital currency both at Post Office™ locations and online. A good example is the leveraging of the vast geographic coverage of the Postal Service to allow unbanked citizens the ability to redeem cash for digital currency in the form of prepaid cards. Such a network

could also facilitate payments between government agencies and citizens, such as Social Security payments and tax refunds.

Initial Applications to Explore

The Postal Service could develop the eMailbox foundation as well as eGovernment applications as a natural first step. The Postal Service would be expanding on its traditional role, providing secure, authenticated, two-way communication between government agencies at every level and citizens. It provides the postal platform with almost instant access to a critical mass of users and makes it attractive to developers looking to reach consumers. Additionally, the application is timely as government cutbacks force agencies to explore new and less costly channels for their services.

Developing eGovernment services encounters fewer barriers than other applications. Current law allows the Postal Service to offer nonpostal products and services to other government entities. While a number of agencies developed tools for online transactions and communications, no one party has unified the applications on a single platform or linked it with a secure electronic identity for individuals.

Ancillary products, within existing legislation, appear to be an area that has not been fully explored by the Postal Service. This may provide some added flexibility for these applications without the immediate need for legislative action. Other applications will arise as innovation and market conditions dictate, though the underlying platform will remain constant. The paper also suggests a limited role in a much larger ecosystem and among many other players. This requires mechanisms and processes for inviting and developing business relationships and strategic alliances with the private, public, and academic sectors.

Implementation

A key element of a digital strategy lies in the creation or designation of a Postal Service functional area to own and coordinate the resources for the effort. There are undoubtedly a myriad of issues (technical, political, and institutional) pertinent to the implementation of a digital strategy. Those issues are outside the scope of this paper but would constitute an interesting topic for follow-up work. The adoption of such a strategy would not only provide a range of new and needed products and services to all Americans, but would help to reinforce the United States' standing as a leader in technology and digital infrastructure. It should be noted that this platform is not a financial panacea for the Postal Service; it should have a utilitarian focus to help all citizens and businesses.

Table of Contents

Tables

Appendix

The Postal Service Role in the Digital Age
Part 2: Expanding the Postal Platform

The Changing World of Communications and Commerce

The digital revolution is rapidly changing the worlds of communication and commerce. This is triggering fundamental changes in the postal ecosystem and accelerating the electronic diversion of traditional hard copy mail. The Postal Service projects continued volume losses over the course of this decade.[2] This phenomenon and other trends have been chronicled by the OIG in the first paper of this series entitled "The Postal Service Role in the Digital Age, Part 1: Facts and Trends."

The Postal Service has been tracking these trends. In the late 1990s, it experimented with a number of digital products and services. For example, it teamed with several foreign postal operators to launch a web-based message delivery service called the Poste Electronic Courier Service or PosteCS. It launched another web-based service in conjunction with a large communications company, called NetPost Certified to enable government agencies to secure and authenticate electronic correspondence. The Postal Service discontinued these products in the early 2000s due to a slow adoption rate and concerns over their return on investment. Current electronic products include a USPS Electronic Postmark® or EPM®, which was licensed to a third party, and Intelligent Mail® barcodes (IMb®), which can track mail from inception to delivery. A key element in surviving business disruption and fostering innovation is drawing lessons from past and present efforts.

The Postal Service is at a critical juncture.

For instance, Polaroid, once a global supplier of cameras and film, did not adapt quickly enough to the force of change in its industry and found itself marginalized as consumers switched to digital alternatives. Leading DVD mailer Netflix (a large postal customer) is already deliberately converting its business model to take advantage of a lower cost online movie delivery method. Craigslist has greatly undermined the multi-billion dollar classified newspaper establishment by providing mostly free classified advertising and charging only for employment and real estate ads.

The Postal Service is at a critical juncture. It can stick to its declining traditional business or evolve and expand its postal platform to the digital realm. It can become a victim of digital disruption and go the way of Polaroid, or it can learn from Netflix, and incorporate the advantages of digital communication into its business operations. The decision to change is not without risks, but an even greater risk would be not to change at all. Netflix has taken

---

[2] Boston Consulting Group, *Projecting US Mail Volumes to 2020*, March 2010, http://www.usps.com/strategicplanning/_pdf/BCG_Detailed%20presentation.pdf.

a significant risk that is showing early signs of success, but Polaroid, despite some recent small-scale success, waited too long to adapt.[3]

This paper suggests that the Postal Service should examine entering the digital space and that this would be consistent with its mandate to "bind the nation together." This would apply a modern interpretation and a natural extension of this role to a new environment. Microsoft has even recognized this position of trust and believes that it should be applied to the digital world when the company stated that postal operators such as the Postal Service could "meet the public need for trusted electronic communications in a way that no private sector organization could rival."[4]

The paper constructs a strategy for the Postal Service's positioning in this new space. The strategy is framed by three guiding principles:
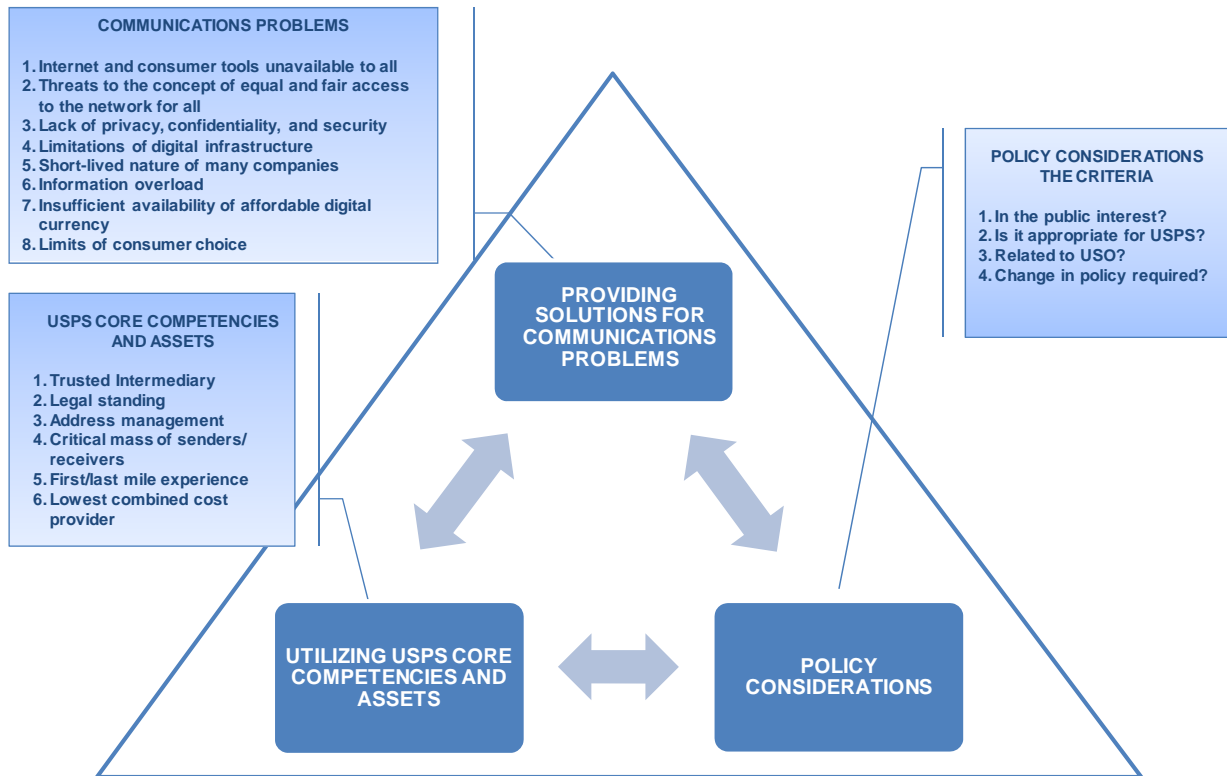
- Promoting solutions for the communications problems of the digital age.

- Utilizing the core competencies and assets of the Postal Service.

- Considering the policy implications of the strategy based on the current legal and regulatory environment.

---

[3] "Netflix now No. 2 video subscription service, earnings impress Wall Street again," *Los Angeles Times*, January 26, 2011, http://latimesblogs.latimes.com/entertainmentnewsbuzz/2011/01/netflix-now-no-2-video-subscription-service-earnings-impress-wall-street-again.html and Don McCrae, "Miss the Big Picture, Fade Like Polaroid," *Bloomberg Business Week*, October 23, 2002, http://www.businessweek.com/careers/content/oct2002/ca20021023_9615.htm.
[4] Microsoft Corporation, "Reply Comments of Maxim Lesur, Worldwide Postal Industry Managing Director for Microsoft Corporation," Postal Regulatory Commission Docket No. MC2008-1, August 20, 2008, p. 5.

The Guiding Principles

All three sets of guiding principles are equally important to developing a positioning strategy. This analysis makes a case for moving the Postal Service into the digital world.

COMMUNICATIONS PROBLEMS

1. Internet and consumer tools unavailable to all
2. Threats to the concept of equal and fair access to the network for all
3. Lack of privacy, confidentiality, and security
4. Limitations of digital infrastructure
5. Short-lived nature of many companies
6. Information overload
7. Insufficient availability of affordable digital currency
8. Limits of consumer choice

POLICY CONSIDERATIONS THE CRITERIA

1. In the public interest?
2. Is it appropriate for USPS?
3. Related to USO?
4. Change in policy required?

USPS CORE COMPETENCIES AND ASSETS

1. Trusted Intermediary
2. Legal standing
3. Address management
4. Critical mass of senders/ receivers
5. First/last mile experience
6. Lowest combined cost provider

PROVIDING SOLUTIONS FOR COMMUNICATIONS PROBLEMS

UTILIZING USPS CORE COMPETENCIES AND ASSETS

POLICY CONSIDERATIONS

First, the rapid growth and lack of established standards in providing digital communications have contributed to an expansive list of communications problems that need attention. Opportunities for the Postal Service in this sphere address unmet market needs stemming from those problems. Second, an examination of Postal Service core competencies suggests that a natural extension of its trusted intermediary role in serving the American people could help fill these gaps and shortcomings through the introduction of an array of new digital services. Finally, the digital strategy requires careful consideration of public policy questions to ensure that pursuing such opportunities constitutes a proper role for the Postal Service.

Providing Solutions for Communications Problems in the Digital Market

While hundreds of millions of users already rely on digital communications, the current digital operating platform, provided by the private sector, has shortcomings in both capabilities and access.

- The growing digital refugee population – While the federal government has embraced the goal of universal service for mail and telephone service, it has yet to extend a similar goal to the digital world. The Internet and all of its functionality are not available to <u>all</u> citizens, which constrains their ability to reap its economic benefits. This lengthening tail of digital refugees will continue as the digital revolution progresses.

  This lengthening tail of digital refugees will continue as the digital revolution progresses.

- Threats to equal and fair access to the Internet – The principle of "network neutrality," which promotes equal access and fair treatment of network traffic, is threatened. Individuals and businesses have no guarantees that platforms will provide them the equal treatment without preference and the same choice of control over services. A recent American University study on Washington D.C.-area residents found that poorer neighborhoods in the city received poorer broadband quality per dollar than nearby suburban customers.[5]

- Lack of adequate privacy, confidentiality, dependability, and security – Many citizens remain concerned about adequate levels of privacy, confidentiality, dependability, and security in digital communication and transactions. Concerns over the control of sensitive information, the potential for involuntary profiling of consumers and the placement of tracking cookies, as well as the implications of further developments in technology, are issues in developing these standards.

- Digital infrastructure limitations and the transient nature of business – The digital infrastructure has limitations in connectivity and bandwidth and is, in some cases, provided by companies that could fail, stranding their customers. Rapid changes in technology and consumer behavior can affect the level and breadth of demand on a given platform. Consistency and permanence are powerful forces.

- Information overload – A lack of adequate personal information management tools makes it difficult to deal effectively with the excess of electronic communications and applications. A curator for personal information, storing financial transactions, health records, and other key data and providing efficient delivery of information when needed, is lacking.

- Insufficient availability of affordable digital currency exchanges – Consumers without ready access to online financial tools are at a disadvantage in the digital world. They do not have access to affordable digital currency and secure and convenient methods to transact online. They must pay predatory fees to convert digital money into cash and vice versa. As the eCommerce choices increase for consumers globally, there is a corresponding need for seamless cross-border payments.

- Limited choice of communication and transaction channels – As companies push consumers into digital-only communications, consumers see their choices limited, or even face complete withdrawal of the physical option. What might have been

---

[5] Benjamin Orr, "Do Low-Income Households Get Slow Broadband by Design?" *The New Republic,* February 28, 2011*, http://www.tnr.com/blog/the-avenue/84325/do-low-income-households-get-slow-broadband-design*

originally offered as an additional option for the consumer could become a new way for companies to control communications.

These challenges and gaps present market opportunities for the Postal Service. Over the past two centuries, the Postal Service has provided a secure, universally accessible platform for physical commerce and communications. The opportunity exists for the Postal Service to extend its trusted intermediary role into the digital age and act as a "bridge" to facilitate the advancement of access to the Internet and develop a "trust portfolio" of digital postal services.

This role may take on many different forms, but by working with leading communications service providers and applications developers, the Postal Service has the opportunity to shape and enforce industry standards that would fill some of the identified gaps in the current digital marketplace. The Postal Service can leverage its assets and work with other government agencies and private sector providers to serve as a bridge between the physical and digital worlds.

Does the Postal Service Have the Pertinent Core Competencies and Assets?

The Postal Service has delivered correspondence and commercial transactions — letters, periodicals, catalogs, and packages — across the domestic and global channels for more than two centuries. These core competencies and assets from its traditional business operations could position the Postal Service to enable the distribution of digitized products as effectively as it has distributed traditional physical items. It would still fulfill the role as the provider of last resort for those who have fewer choices.

- A history as a trusted intermediary – For the past 236 years, the Postal Service has adeptly executed its mission "to provide postal services to bind the Nation together through the personal, educational, literary, and business correspondence of the people." It has provided "prompt, reliable, and efficient services to patrons in all areas and (has rendered) postal services to all communities."[6] In the 21st-century interpretation of its 18th-century mission, the Postal Service serves as the official national platform for the secure distribution of society's communications and commerce throughout the postal ecosystem, linking industries to the American public.

- A position of legal standing for postal communications – The Postal Service's position as a standard for communications is recognized by every level of government as well as the courts. The postmark placed on mail is commonly recognized as a date stamp for everything from tax returns to legal filings. Mail also has legal protection, as unauthorized opening or tampering with the U.S. Mail™ is considered a federal offense. First-Class Mail® is considered "sealed against inspection," a law dating back to colonial times protecting the mail from theft, interference, fraud, and forgery. This protection could apply to digital applications, ensuring that communications remain private and their content secure from third parties.

---

[6] 39 U.S.C. § 101.

- **Experience in developing and running a national address management system** – The Postal Service has established an addressing system that identifies each delivery point, or address, in the country so mail reaches its intended recipient, whether sent to a household or business. Relying on a set of addressing standards, it securely maintains and updates this vast national database. In addition, the values of affordability, reliability, universal accessibility, and security as promised and provided by the U.S. government, are critical and must be preserved in any interpretation of the Postal Service mission.

- **A critical mass of customers** –The Postal Service has the largest customer base in the nation. Every household and every business sends or receives mail on a daily basis, providing a truly national as well as local presence. In providing this wide customer base with a uniform range of products and services, the Postal Service has also gained experience in rolling out products from a small scale to the national level. While other companies may propose and launch new ideas before the Postal Service, few have the capabilities or infrastructure to serve every household and business.

- **Facilitating communications in the first and last mile** – While there is a cost to meeting its Universal Service Obligation, the Postal Service also derives benefits from its experience in the first mile (receiving mail and parcels) and last mile (delivering mail and parcels). As a result, competitors in parcel delivery regularly outsource returns and some residential deliveries to the Postal Service. Furthermore, daily delivery to every address enables the Postal Service to more efficiently maintain and update its address management system.

- **Acting as the last resort provider at the lowest combined cost** – By outsourcing to or collaborating with private companies as well as investing in technologies and strategies to improve internal efficiencies, the Postal Service keeps prices affordable for mailers and consumers by introducing and adopting "worksharing." The Postal Service offers an unbeatable combination of low prices with efficient delivery, unmatched anywhere in the world. This experience could be transferred to online operations and offerings.

- **Experience with currency transactions** – The Postal Service has a long history of acting as a last resort provider for currency transactions. Domestically, postal money orders have been offered for nearly 150 years. Internationally, the Postal Service offers money orders to 30 countries and wire transactions to 10. Postal Service clerks have amassed significant experience in this line of products over the years, enhancing the Postal Service's role as a trusted intermediary in handling currency transactions.

What Policy Implications Need to be Considered?

The Postal Service served as a platform in its traditional role of providing a physical infrastructure to facilitate communications and commerce throughout the United States. From a policy perspective, the question is whether the Postal Service should play a similar role in the digital space.

Certainly, there appears to be a national need to provide a digital platform with the trademark characteristics — affordability, reliability, universal accessibility, and security — of the Postal Service physical platform. As part of this strategy's guiding principles, this paper presents the following core questions:

- Is the application in the public interest? – Generally, the government provides services as a last resort when the role cannot or will not be easily filled by the private sector. If the Postal Service fills one of the many gaps or shortcomings in the digital space, would this be an appropriate role for the U.S. government? If so, is the Postal Service the best agency for that role or is there another governmental entity with sufficient core competencies to fulfill the role or provide the service?

- Is the application appropriate for USPS? – Would the Postal Service be in direct competition with private companies or is this a product or service not being adequately provided in the market currently? Could this be an opportunity for a strategic partnership or cooperative effort combining the Postal Service's core competencies with private sector innovation?

- Is the application needed to assure the Universal Service Obligation? – Does the application support the core mission of the Postal Service, which is to bind the nation together through personal, educational, literary, and business correspondence? Would the digital application be a natural extension of a product or service already provided in the physical world and part of the portfolio of products accessible to every American household and business?

- Would a policy change be required? – Some services are already offered by the Postal Service in some capacity. Would adding additional features require approval? Does the application meet the Postal Accountability and Enhancement Act's (PAEA) definition of a postal service (defined as "the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto"[7])? Could some of these applications be classified under "ancillary service" provisions while others could perhaps meet the criteria to be tested as experimental products?[8] Would the Postal Service need changes in policy to pursue the application?

Two critical questions must be answered by policymakers and the Postal Service, but are outside the scope of this paper. They include:

- Does the application fit the definition of a postal product or service? – Current laws restrict the Postal Service from providing nonpostal services, which have traditionally been associated with the transport and delivery of physical mail. Would new applications in the digital space fit a modern definition of a postal product or service? Is the application already being pursued by the private sector and is there already a product or service commercially available?

---

[7] 39 U.S.C §§102-105.
[8] The Postal Accountability and Enhancement Act, Section 203, §3641 describes the conditions necessary for carrying out a market test for experimental products. Among other requirements, the product must be "significantly different" or novel and cannot create an unfair or inappropriate competitive advantage.

- ▪ <u>Is the application relatively feasible?</u> – Would the Postal Service be able to implement an initiative in a timely enough manner for it to have a reasonable chance of success? Would the application generate revenue or at least break even over 5 years? Does the Postal Service have the internal expertise (or organizational structure) or could it easily collaborate with a third party to develop the service and create a cobranding partnership or private label service? The Postal Service already enables and relies on a great number of private entities. Together, they too add value to users' postal transactions with convenience, cost reduction, and speed of completion.

The eMailbox Foundation and the Postal Platform

Critical to the postal strategy is the development and deployment of an "eMailbox." The eMailbox would serve as a foundation to capitalize on the range of possible initial applications outlined in the succeeding section.
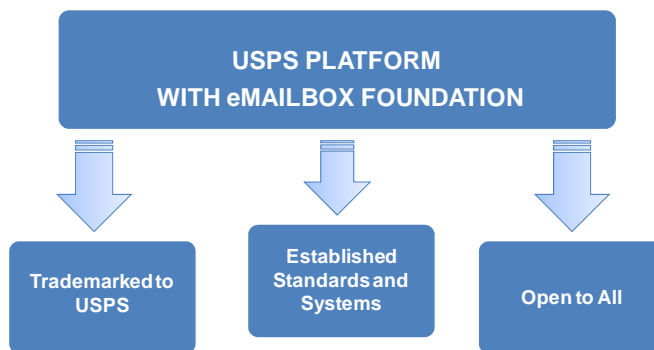
Features of the eMailbox Foundation

The eMailbox would serve as a single official U.S. Mail branded e-mail box at a secure website. Individuals could collect all daily mail from their eMailboxes. The standard features of the eMailbox would include:

- Every individual would have a permanent single eMailbox address.

The eMailbox would serve as a single official U.S. Mail branded e-mail box at a secure website.

- Linkage to other government initiatives, such as the National Strategy for Trusted Identities in Cyberspace (a federal cybersecurity-focused identity management vision and strategy).

- eMailbox addressing standards would be officially established and maintained in the same manner as current Postal Service ZIP Code addressing standards.

- With the eMailbox as the foundation for the electronic platform, the Postal Service would then have the ability to deliver both physical and electronic items and facilitate the receipt of the messages in both electronic and physical formats.

- The eMailbox allows the receivers to choose to receive mail from individual senders by either physical or electronic delivery. The receivers would have the opportunity to opt in and transition to full electronic delivery at their own pace.

- Using the link to the physical mailing address, commercial mailers would maintain uninterrupted customer contact.

- Most individual physical delivery addresses would have multiple residents, each requiring a unique eMailbox address.

- With anywhere, any device access, it provides those without a permanent address the ability to move into the digital economy and avoid the additional costs associated with paper mailings.

- Mail recipients would be provided with the online tools to easily manage their mail delivery options and channels, such as changing physical addresses when moving or holding and forwarding mail when away.

- Mail recipients could express channel preferences to mailers for mail content received. For example, a customer interested in receiving coupons from a local grocery store could choose to receive them electronically at their eMailbox rather than in paper form.

- eMailbox users would be offered secure storage solutions for electronic documents, preference-based filters, and solutions to help manage communications, community connections for notices and community activities, as well as government and city connections.

- Address-coupling technology, which connects physical and e-mail addresses, exists and applications are currently available in the U.S. mail market, as offered by Zumbox. Other solutions from postal service providers and foreign postal operators will soon be available. Pitney Bowes has announced its "integrated" addressing concept called Volly™, while Hearst is rolling out Manilla. Norway Post recently launched its Digipost digital mailbox service as well.

- The Postal Service will need to analyze and determine the type of nomenclature or top-level domain name for the eMailbox. E-mail addresses could use the well-known .com or .gov or the new top-level domain name .post, which was approved for use by postal operators and managed by the Universal Postal Union (UPU), a technical agency of the United Nations responsible for the regulations and standards of international mail.[9] While the .post project has multiple applications in eGovernment and eCommerce, the domain name could serve as a critical component of the overall platform.

Developing a Postal Platform

The first step in platform development is trademarking. Such a step is necessary to ensure full protection and preserve its exclusive designation as a trusted intermediary and enabler for the businesses and individuals utilizing it. The Postal Service has a great deal of experience in registering and enforcing trademarks for a wide range of products and services. This "USPS Platform" would be universally recognized just as the iPhone App Store is trademark–protected by Apple® Inc.

The second step is establishing standards and systems for operating on the platform. The standards requirements would need to be approved by Postal Service management and conform to U.S. regulatory bodies and national and international standards organizations. These could encompass everything from cyber security to Internet Protocol addressing requirements to adhering to Payment Card Industry Data Security Standards. The Postal

---

[9] Universal Postal Union, "ICANN Grants UPU .post top-level domain," news release, December 11, 2009, http://www.upu.int/en/media-centre/news/union-postale-emag/underway-news/category/technology/article/52/icann-grants-upu-post-top-level-domain-1.html.

Service would also determine the types of systems and applications suitable for the platform. Finally, the platform would be open to all. The cooperative outsourcing spirit of worksharing on the physical mail platform should expand to the digital platform.

The Three-Layers Approach

The applications would be developed within three layers (see Table 1). The Platform Infrastructure layer is the core of the approach providing the hardware and tools that are open for others to leverage. For Apple, this would include its all-important iPhone and iPad platforms, while for the Postal Service this would mean such core assets as its address management database, the retail network, and track and trace systems. The Entrepreneurial layer forms a stratum atop the platform infrastructure and allows individuals and businesses of all sizes to utilize existing infrastructure to create new value. Apple's vast array of 350,000-plus iPhone apps provides the best example. Comparable examples for the Postal Service would be Intelligent Mail barcodes and worksharing.

The Strategic Alliance and Network layer makes up the last component, which creates a broad system of alliances and networks between the owner of the core assets and the players on the platform. In Apple's case, this is illustrated through its maintenance of the App Store, where users, entrepreneurs, and other players partner with Apple and amongst themselves to develop an entire subsystem of applications, accessories, and other offerings composing an entire community. For the Postal Service, this would include senders and addressees as well as third-party players from across industry and government collaborating, partnering, and even cobranding applications.

Table 1: The Three Layers of the Postal Platform

Layer	Characteristics	Examples
Platform Infrastructure	The Postal Service provides the foundation as well as defines the standards and types of systems that can be used	iPhone, iPad, and iPhone App Developer Kit
Entrepreneurial	Businesses of every size and individuals create value on top of the provided platform	iPhone Apps
Strategic Alliance/Network	The Postal Service partners with key industry players in creating mutually beneficial products and services through business relationships that grow the ecosystem through outsourced, cobranded, and private label products	Apple community of businesses and consumers

If services such as these were enabled on the postal platform and endorsed, facilitated, and promoted by the Postal Service, consumer adoption would likely be achieved at a higher rate. Not only would the powerful promotional reach of the Postal Service brand be significant, its official endorsement and authorization would serve as the stamp of approval and extension of the all-important element of trust.

The highly successful, fast-growing online postage program offers a precedent for the Postal Service to license applications from third parties. Consumers and small businesses alike are buying postage online from applications provided by approved vendors such as eBay, Endicia®, Pitney Bowes, and Stamps.com®.

Initial Digital Applications

This section identifies and analyzes the seven applications the Postal Service could develop, in addition to its established suite of electronic services, to extend its physical postal platform into the digital realm. Some should be seen simply as responses to customer-service demands. Others may amount to new revenue opportunities. Several may fall outside of its current allowable operating authority, but still should be considered. Finally, some applications may be provided by other government agencies, private businesses, and emerging entrepreneurs. In this case, the Postal Service could act as an impartial enabler, collaborator, or advocate. All would be contingent upon connecting an individual's physical address to an e-mail address for each registered individual.
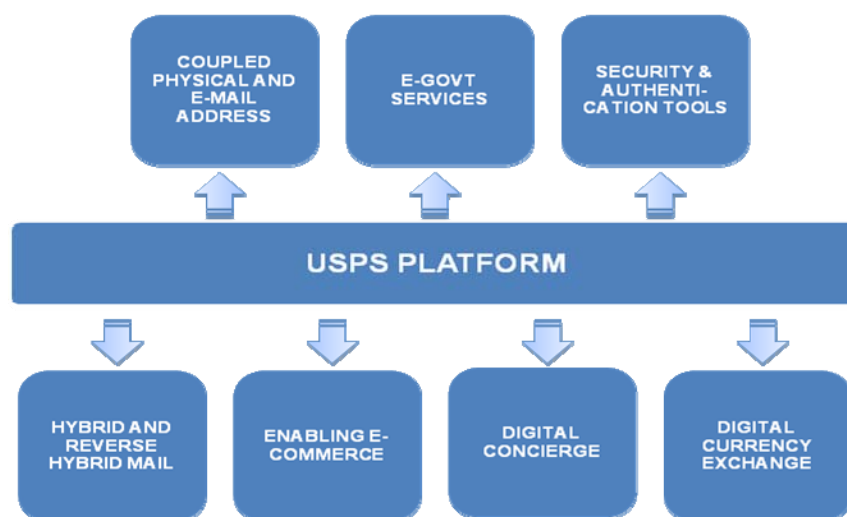

Table 2 provides an overview of the initial applications discussed in this paper. It also provides a summary of our analysis (based on the guiding principles) on why the Postal Service is in the best position to pursue these applications. The public policy implications and options are discussed in detail in the Appendix. Those require critical deliberations. Unlike a private company, the Postal Service is not free to design and implement an e-business strategy as it deems fit. Any strategies or services must be consistent with existing public policy and regulatory constraints, or must await changes to allow the Postal Service to undertake them.

While the Postal Service has offered some of these products on a smaller scale in the past, others are new and would require development and cooperation with third parties. Overall, the digital initiatives that appear to be the best fit for the Postal Service can be categorized into three groups: those related to the Postal Service's physical delivery of mail, those that would address gaps in the digital space, and those that would deliver government services and information through a combination of physical and electronic means.

Section 101 of the PAEA defines postal services as "the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto." The term ancillary has not yet been fully defined through the regulatory filing process so that many of the proposed digital products and services may supplement or be a natural extension of current products and services. For other initiatives, new statutory authority may be necessary. Ongoing legislative debates provide the Postal Service with an opportunity to make its case to policymakers to seek the necessary changes.

Table 2: Opportunity Checklist

Opportunity	Description	Why use the Postal Service?	Public Policy Criteria			
			In the public interest?	Appropriate for USPS?	Related to USO?	Requires policy change?
Coupled Physical and e-mail Address: "eMailbox"	Enable individuals with an authorized U.S. Mail physical address to have an eMailbox address.	▪ Address data ▪ Identify individuals & establish electronic connection ▪ Brand/Reach	Yes	Yes	Yes	Possibly Yes
eGovernment Platform	Enable a common transaction platform for government services.	▪ First & Last mile connection ▪ Physical locations ▪ Identity Validation ▪ eMailbox	Yes	Yes[10]	Yes	No
Identity validation, privacy protection, and financial security	Enable identity validation by linking the physical identity to the eMailbox.	▪ Address data ▪ Physical locations ▪ eMailbox	Yes	Possibly Yes	Yes	Yes
Hybrid and Reverse Hybrid Mail	Convert digital documents to physical and vice versa for senders and receivers.	▪ First & Last mile connection ▪ Physical locations ▪ eMailbox	Yes	Possibly Yes	Yes	Possibly Yes
Enabling eCommerce	Connect senders and receivers physically and electronically to offer returns, landed cost, and payment solutions.	▪ First & Last mile connection ▪ Physical locations ▪ Brand/Reach ▪ Identity Validation ▪ eMailbox	Yes	Possibly Yes	Yes	Possibly Yes
Digital Concierge	Provide tools to help individuals manage their communications across all channels.	▪ First & Last mile connection ▪ Brand trust ▪ Physical locations ▪ eMailbox	Possibly No	Possibly Yes	Possibly Yes	Yes
Digital Currency Exchange	Mechanisms to conduct financial transactions at post office locations and online.	▪ First & Last mile connection ▪ Brand trust ▪ Physical locations ▪ Identity Validation	Yes	Possibly Yes	Possibly Yes	Yes

---

[10] Though an eGovernment services platform is not defined under PAEA, the Postal Service is allowed to provide services to other government agencies.

Coupled Physical and E-mail Address

Connecting a physical address to an e-mail address is the underpinning of the overall digital platform expansion. The key features of the coupled address and creation of an eMailbox are explained in detail in the preceding section on the eMailbox Foundation and the Postal Platform.

eGovernment Platform

A natural domain for the Postal Service to establish itself is within the U.S. Government. It should begin with binding government entities with each other as well with their constituencies. Federal departments and programs, such as the Internal Revenue Service,

A natural domain for the Postal Service to establish itself is with the U.S. Government itself.

Social Security Administration, Medicare, Veterans Administration, and U.S. Census Bureau, depend upon the Postal Service to reliably deliver confidential communications, personal data, and financial transactions to residents. However, government agencies are initiating digital communications strategies to both cut costs due to growing budgetary constraints and enhance customer service. If government entities were to invest in separate digital platforms, taxpayer funds would be wasted. The Postal Service enjoys a high level of trust amongst hundreds of millions of recipients of government-originated mail, not to mention the government agencies themselves. These essentials would continue as part of the digital postal platform available to all entities.

Secure National Database

In addition to facilitating communications and managing the flow of data between agencies across the postal platform, the Postal Service is the ideal agency to store the personal digitized data of the nation's citizens. Through its hosting of the physical address files for every business and household in America, it has proven the value of a consolidated centralized national database securely managed according to strict standards.

As the most trusted federal agency[11], the Postal Service should serve its citizens as the secure connection to other centralized federal government personal databases, such as social security, law enforcement, veterans, passport, etc., as well as state voting, driving, education, and real estate records. A trusted centralized access point to personal consumer data, such as credit and health records, would also be appealing to many on an opt-in basis.

Getting started with eGovernment

A Postal Service platform strategy would synchronize well with an overall eGovernment strategy. Given the current absence of such a plan, the Postal Service could seek the creation of an interagency task force charged with defining a comprehensive eGovernment approach. The Postal Service could be at the forefront of implementation efforts with

---

[11] Ben Bain, "For privacy protection, survey says this agency delivers," *Federal Computer Week*, June 30, 2010. http://fcw.com/articles/2010/06/30/web-federal-agencies-privacy-trust-survey.aspx.

respect to reaching the U.S. population. In particular, the Postal Service could assist other agencies in determining the appropriate mix of digital and hard copy outreach to Americans, and could be the vehicle for delivering those communications, perhaps pairing online efforts with kiosks that would be located in Post Offices in areas with limited broadband access.

Of course, in developing an eGovernment-wide strategy, it would be important to work in concert with other government agencies in developing their outreach strategies and with the existing agencies that already have some jurisdiction in the digital space, such as the Federal Communications Commission, Federal Trade Commission, and the National Telecommunications and Information Administration.

A lengthy analysis of eGovernment services is unnecessary; PAEA's definition of postal services, as detailed in a recent study by the Institute for Research on the Economics of Taxation (IRET), states, "The law permits the [Postal] Service to provide nonpostal services to other government entities."[12]

Furthermore, an eGovernment initiative could be a major component of an overall government services strategy – something that several observers have suggested as a logical opportunity for the Postal Service to pursue. For example, Postal Regulatory (PRC) Commission Chairman Ruth Goldway, in December 2, 2010, testimony noted: "In general, Postal Service 'federal' agreements have increased the availability of government services for residents, added operational flexibility for government agencies, and provided incremental revenue to the Postal Service. Appropriately applied, such arrangements promise to be similarly beneficial at the state and local level."

Separately, the IRET study concluded the Postal Service could pursue a number of nonpostal government services under PAEA, stating, "The Postal Service would be wise to take several steps. Internally, it should examine its operations and resources, looking for activities that it thinks would assist other government agencies, help the public, be profitable for the Postal Service, and not impair mail delivery. It should also seek ideas from the postal community. Additionally, the Postal Service should consult with federal, state, and local governments about possibilities for cooperation." This is particularly true as many state and local government officials continue to seek ways to cut costs and services to close budget deficits.

Moving beyond eGovernment to serving as a digital platform open to all users raises additional questions that the Postal Service and other stakeholders would have to address — but the dialogue could start while the eGovernment platform is under development.

Tools for Identity Validation, Privacy Protection, and Transaction Security

The Postal Service has earned its reputation as the most trusted federal government agency by being a reliable delivery partner for 236 years. Customers will regularly drop

---

[12] Michael Schuyler, "Opportunities for the Postal Service to Deliver Nonpostal Government Services," IRET Congressional Advisory No. 270, Institute for Research on the Economics of Taxation, November 30, 2010, http://iret.org/pub/ADVS-270.PDF.

their most personal secrets and prized possessions "in the mail" without reservation. Moreover, federal law protects the items they send.

Identity Validation

Security is fundamental to the current postal platform and must be a significant part of the digital platform. Given the current gaps in the digital world, the digital postal platform can be part of an overall solution to close these gaps. Working with the Department of Commerce, the Postal Service could help enable the National Strategy for Trusted Identities in Cyberspace, a federal initiative designed to improve the security and convenience of online transactions. By leveraging the existing assets — namely the address database and physical post offices across the country — in combination with future assets such as the eMailbox, the Postal Service could enable both identity authentication and identity validation. With capabilities for end-to-end identity assurance, the platform will facilitate individual identity management and, with the right partners, increase the potential for privacy and financial transaction security. This authorization can then be used to enable financial transactions and further enhance the digital economy.

Privacy

Privacy is another physical world attribute that does not yet exist with full assurance in the digital world. The Postal Service could use its reputation to influence the development of trusted privacy applications while advocating for consistent consumer rights across the platforms. In a December 2010 decision,[13] a federal appeals court ruled that there are fundamental similarities between e-mail and traditional forms of communication such as postal mail and telephone calls and declared that e-mail should be afforded the same Fourth Amendment protections against unreasonable searches and seizures.

Yet, for some people, the lack of adequate privacy when communicating on the Internet tops their list of concerns. In fact, as a key element of digital postal platform, security represents the widest gap in the digital divide.

Transaction Security

With all its acknowledged and proven advantages such as cost, convenience, and speed of execution, the Internet presents significant risks for users. Many commercially available Internet security tools exist to protect against a growing market in "cyber crime" and they are largely effective. However, they do not hold the level of trust that consumers have in the Postal Service.

There remains a struggle between those who develop secure financial transaction software and those who try to exploit its weaknesses. In order to evolve into a cashless society, the infrastructure requires innovations in both currency and security of payments. New developments in e-currency will need to combine ease of use with the security features demanded by consumers. The fear of having credit card data stolen remains an issue for all Americans whether a Baby Boomer or a member of Generation Y.

---

[13] For more information, see United States v. Warshak, Sixth Circuit Court of Appeals, December 14, 2010, http://www.ca6.uscourts.gov/opinions.pdf/10a0377p-06.pdf.

In cooperation with private-sector innovators, the Postal Service already has enabled the development of online postage payment applications; in fact, these have become one of the most popular retail postal applications. The Postal Service has the opportunity, influence, and credibility to advocate for the development of security tools for its digital postal platform by entrepreneurs, established private businesses, and other government agencies.

Hybrid and Reverse Hybrid Mail

Echoing investments and the direction of other posts, the Postal Service should consider expanding hybrid mail applications as an early step on the bridge across the digital divide.

- Digital to physical – Hybrid mail typically begins as a digital document, such as an invoice, that is securely transmitted to one of many remote printers located closer to the recipient's address (its final destination). There it becomes a physical document and is inserted into an envelope, presorted, mailed, and delivered conventionally by letter carrier. Another approach allows a consumer or small business to access a web-based template for printing and mailing photo postcards or direct marketing pieces from a central location. The Postal Service maintains strategic partnerships with a number of companies in this area including Click2Mail™, Cardstore.com, and PremiumPostcard. Other third-party providers of these services include Pitney Bowes 1ntegrate, Immediate Mailing Services, and DigitalToPrint, which specializes in distributing hybrid mail overseas.

- Physical to digital – Reverse hybrid mail begins as a conventional letter received at a central location, where it is scanned and made available to the addressee on a secure website or delivered to the e-mail address. The recipient can then view, forward, discard, or store it like other document files. A service like this is commercially available in the United States from Earth Class Mail and offered in Europe by SwissPost.

Hybrid and reverse hybrid mail are applications that are facilitated by having both physical and electronic platforms and further encourage innovation to pair physical mail with its digitized counterpart and electronic mail with its physical equivalent. When paired with an eMailbox, this hybrid focus would further enhance the value of the electronic platform and connect more people to the network.

In these applications, hybrid mail employs the convenience, low cost, perceived environmental benefits, and speed of digital transmission and display, with the desired appeal and familiarity of conventional letters and cards. Reverse hybrid mail empowers the consumer, particularly those that have made the full leap to digital, to receive their physical mail in digital form. This is particularly attractive to traveling executives and for businesses attempting to reduce mailroom costs.

Enabling eCommerce

eCommerce and mobile commerce (mCommerce) markets are growing globally. For many consumers and businesses alike, this market has several key barriers that are curtailing its full development.

For potential e-tailers developing an end-to-end solution can be a challenge even though the eCommerce value chain is well understood and many companies offer services for: marketing and merchandising; on-line ordering and payment; warehousing, pickup, pack, and ship operations; residential delivery; customer service; and returns. However, many smaller e-tailers face serious challenges in integrating multiple services efficiently.

For both consumers and businesses, international transactions are complex and costly. Most U.S. websites do not accept orders for delivery to international addresses or payment by foreign credit card. Fewer offer efficient and cost-effective solutions for "fully landed" or true cost pricing, which includes paid duty, taxes, customs fees, insurance, and residential delivery charges. Even for domestic orders, several issues challenge consumers: inadequate visibility into the status of their order, lack of real-time notification and options to redirect delivery, and finally, limited ability to effectively and efficiently manage returns. The growth for global eCommerce depends on the seamless integration of ordering and payment across borders.

The growth for global eCommerce depends on the seamless integration of ordering and payment across borders.

The Postal Service platform is well positioned to connect the dots between senders and receivers both physically and electronically. The platform can host applications that remove some of the barriers to effective eCommerce and mCommerce. Outside third parties will best provide some applications, but in other instances, the Postal Service may be in a position to provide the solution itself.

- The Postal Service currently facilitates convenient parcel return services, including pick up by carrier and acceptance at retail outlets. Valuable consumer data about returned merchandise would enhance returns management solutions.

- The Postal Service would facilitate the incorporation of landed cost applications and solutions as a component offered to its business customers, thus enabling growth in parcel exports on the digital postal platform. Several applications already exist such as Borderfree and Clearpath.

- The most significant hurdle to further eCommerce growth is online payment. Fearing identity theft, consumers are reluctant to share personal financial information on the web.[14] The Postal Service is in a position to offer a variety of solutions bridging the physical and electronic worlds. It could emulate Itella's (Finland Post) NetPosti and have electronic invoices sent to eMailboxes for secure online payment. Australian Post, which recently acquired a payment platform

---

[14] Chloe Albanesius, "Study: Generation Y Taking Online Privacy to Heart," *PC Magazine*, May 27, 2010, www.pcmag.com/article2/0,2817,2364227,00.asp.

provider, offers another model for developing this critical function. The Postal Service has already demonstrated its expertise in managing secure online payments through millions of online transactions daily, many of which are facilitated on its platform by licensed third parties.

Digital Concierge

With the vast amount of information available on the web and the explosion of e-mail, texting, Tweets, and other communications, users have been bombarded with information. In addition, as many utilize web applications for personal business, they are increasingly concerned about limiting the amount of information they share online[15] and with whom. Individuals are seeking some sort of balance between sharing information, filtering messages, and the ability to protect privacy.[16] Some recent innovations are focused on developing applications and services that help people decipher the "good from the bad" and organize electronic data in a way that increases their Internet productivity.

The Postal Service has an opportunity to enhance its relationship with these individuals. It can leverage its trust in establishing a safe "lock box" which would serve as a type of curator for personal information ranging from financial payments and health records to legal documents and electronic backups of personal papers. While most payment sites, banks, and other online sites leave critical data on the providers' sites, the lockbox would allow consumers to maintain personal records on a personal site. The lockbox would not only provide a high level of security, but also the means to share information efficiently and quickly when needed.

In the physical world, many postal services offer a "Preference Service" (Belgium and Great Britain, for example), which enables individuals to identify the advertising they want to receive. It helps the advertiser target individuals who are likely to buy, thus eliminating wasteful mailings to those who are not. For example, Poste Italiane's EMailbox serves as an agent for the individual and ensures that private information is not shared directly with the advertiser.

Acting as the Digital Concierge, the Postal Service would leverage its experience with individual consumers to ensure they receive what they want, when and where they want it. This role leverages the trust, brand, and first mile/last mile presence. The Postal Service is in an ideal position to serve as a trusted gatekeeper that preserves identity and privacy while simultaneously facilitating personalized and targeted messages.

Digital Currency Exchange

Opportunities may also exist for the Postal Service to aid secure financial transactions on its digital postal platform, moving beyond its historical role of issuing money orders and providing electronic international money transfer services through Sure Money (Dinero Seguro) with its partner, Bancomer. The Postal Service has experience with reloadable

---

[15] Ibid.
[16] Organisation for Economic Co-operation and Development, *The Economic and Social Role of Internet Intermediaries*, April 2010, http://www.oecd.org/dataoecd/49/4/44949023.pdf.

stored value cards, though it discontinued them in 2003. Additionally, billions of dollars in postage payments are already electronically transferred between commercial customers and the Postal Service each year. Businesses and consumers trust that their financial transactions with the Postal Service are secure.

Digital technologies could allow the Postal Service to expand its trusted role as a provider of online currency transactions to underserved markets. Facilitating international eCommerce transactions have been discussed in the Enabling eCommerce section.

Helping the Unbanked

In the spirit of its serving as the postal "provider of last resort" ensuring that "no-one is left behind," the Postal Service would help to facilitate financial transactions on its platform for individuals without bank accounts or credit cards. Offering financial transactions both at Post Office locations and online would provide a valuable service to this segment of society that is often overlooked. A growing proportion of U.S. citizens are unbanked, including working families, new immigrants, unemployed, homeless, or noncreditworthy individuals. They need easier access to payment systems in order to transfer funds on prepaid debit or stored value cards to cash or vice versa. The Postal Service would use its identification verification skills, as it does with passport applications, to facilitate authenticated cash or prepaid debit card disbursements from state and federal agencies to these individuals at local Post Offices.

The Postal Service would help to facilitate financial transactions on its platform for individuals without bank accounts or credit cards.

One somewhat surprising disruptive digital phenomenon is that while many individuals may be unbanked, they often have mobile phones. In some African and Asian countries, mobile phones have already become the primary means of payment and access to cash. Examples of this service include M-Pesa, Kenya's highly successful mobile money transfer service, and Obopay, a similar service now offered in the United States. While these services facilitate the transfer of funds from one phone to another, they require retail facilities for receiving and disbursing cash. Post Offices, already well experienced in handling money orders, would provide convenient and trusted outlets to facilitate such financial transactions.

Conclusion

The Postal Service should consider addressing the inevitable digital disruption and radical transformation of the postal ecosystem in America. It has the legacy of serving the nation as a communications platform and it can continue to serve all of its customers with access to physical as well as digital postal products. Given the rapid changes in technology and consumer behavior, the Postal Service would benefit from identifying a lead functional area where it could devise and implement a digital strategy. It can start by studying the feasibility of some of the prospective applications identified in this white paper, particularly the eMailbox foundation and eGovernment applications. Some of the other applications may meet the criteria of an "ancillary service" though this classification process remains open to interpretation.

The Postal Service has the opportunity to extend its national platform into the digital world and enable traditional service providers, as well as new entrepreneurial "applications developers," to generate a wide array of additional physical and digital postal services to meet the present and future needs of digital natives and digital migrants. The framework outlined in this paper is not a cure-all for solving the Postal Service's ongoing financial difficulties. However, by embracing a digital strategy, the Postal Service would be providing needed solutions through a suite of digital products and services. It would modernize a vital part of our national infrastructure and ensure that all Americans have the opportunity to access an innovative postal platform that reflects America's position as a technology leader.

Appendix

U.S. Postal Service Office of Inspector General   **April 19, 2011**
Part 2: Expanding the Postal Platform   **RARC-WP-11-003**

22

Public Policy Implications and Options for the Postal Service to Bridge the Digital Divide

Unlike a private company, the Postal Service is not free to design and implement a digital strategy as it deems fit: any e-business strategies or services adopted must be consistent with existing public policy, or must await changes in policy to allow it to undertake them. The Postal Service operates under a mandate from Congress, as codified under Title 39 of the U.S. Code, and within a well-developed and still evolving regulatory framework.

This appendix considers whether the Postal Service can pursue a digital strategy in light of existing public policy. It first provides an overview of the postal policy environment including a review of the Postal Service Mission, USO and nonpostal products and services. Finally, it analyzes specific digital applications according to the checklist outlined in the main body of the paper.

Postal Policy

The prevailing U.S. postal statute is the Postal Accountability and Enhancement Act of 2006 (PAEA). It was enacted after roughly a decade of stakeholder debate over the future of the Postal Service. Shortly after its passage, the first hints of the current economic downturn surfaced. This helped accelerate a volume decline that had already begun with the trend toward digital communications. These developments threatened the financial viability of the Postal Service, instigating new efforts by postal stakeholders to consider substantial additional changes in the law. Notwithstanding current legislative proposals, today's provisions of Title 39, as amended by the PAEA, remain the key policy guideposts for the Postal Service. They set the existing policy framework within which Postal Service digital initiatives must be considered.

Postal Service Mission and Universal Service Obligation

Sections 101(a) and 403(a) of Title 39 specify that the Postal Service shall be operated as a basic and fundamental service provided to the American people. Its core obligation is to provide postal services "to bind the nation together through personal, educational, literary, and business correspondence." The Postal Service is to provide adequate and efficient postal services at fair and reasonable rates, and is to serve "as nearly as practicable the entire population of the United States." This universal service obligation is at the heart of our nation's postal system. However, it is not explicitly defined in law, either in the PAEA or in previous postal statutes. Universal service has generally been interpreted to mean the Postal Service will deliver to all parts of the country at a reasonable price.

The PAEA directed the Postal Regulatory Commission (PRC) to identify the scope and standards of universal service based on a comprehensive review of its history and

development.[17] The PRC issued its resulting *Report on Universal Service and the Postal Monopoly* in December 2008, which concluded in part:

> The USO is not specific. The Postal Service is to achieve the best possible balance of these service features [geographic scope, product range, access, delivery, pricing, service quality, and an enforcement mechanism] consistent with efficient and economic practices. Congress has rarely established rigid, numerical standards of minimally acceptable service for each of these features. Rather, throughout its history, the Postal Service has been expected to use its flexibility to meet the needs and expectations of the Nation while balancing the delivery of service against budgetary constraints. This long-standing policy has worked well.

The report was completed before the full impact of the economic crisis hit the Postal Service. Even so, the Commission's December 19, 2008, letter accompanying the report noted that a changing landscape might require new thinking about the USO:

> Had this report been issued several months ago, these factors would have led the Commission to recommend that no near-term changes be contemplated to universal postal service, the USO, the postal monopoly, or the mailbox monopoly. Although no immediate changes are called for, recent events require the Commission to recommend that Congress closely monitor the Postal Service's financial situation as the possibility now exists that significant changes may become necessary to preserve effective and efficient postal services for the Nation.

The PRC report notes repeatedly that the USO is flexible. It further notes that the Postal Service must balance overlapping requirements, such as meeting the needs of citizens and maintaining an efficient and economical system. It concludes, "As history has demonstrated, what is necessary to bind the nation together changes over time."

Flexibility by policymakers in defining the USO will be essential as the Postal Service finds its place in the digital world. Whether or not the Postal Service becomes a full player in the digital world, many types of physical mail are likely to continue their decline and erode profitability. This may necessitate a fresh look at universal service, with perhaps a greater emphasis on the efficient and economic portion of the USO. Access to retail services may not need to be the same as it is today. It might become too expensive to support the current level of delivery service or the current service standards. However, history indicates it is possible to redefine the universal service obligation over time. Conceivably, this could be done as part of a strategy for moving the Postal Service increasingly into the digital world. For example, universal service might come to mean some complementary combination of physical and electronic access.

---

[17] PAEA also directed the PRC to conduct a similar analysis of the postal monopoly.

Definition of Postal Products and Services

Section 101 of PAEA defines postal services as 'the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto." It also defines "product" as "a postal service with a distinct cost or market characteristic for which a rate or rates are, or may reasonably be, applied." The Postal Service has discretion to define its products. For purposes of ratemaking, the products are categorized as either "market dominant" or "competitive."

In defining postal products and services, PAEA went beyond previous postal statutes, which had remained silent on this subject. This was largely in response to criticism that the absence of a definition allowed the Postal Service to conduct nonpostal activities that competed directly and, at times, unfairly with private companies. The Postal Service also had a poor track record and incurred significant losses in its earlier nonpostal initiatives (including those related to eCommerce).[18] However, early failures often indicate a culture of innovation. There are a growing number of postal observers who believe the Postal Service should diversify to become more relevant in the digital age. However, concerns about the Postal Service's ability to break even and competition with private sector providers will remain relevant to any debate about the Postal Service and digital initiatives.

Nonpostal Products and Services

PAEA restricts the Postal Service from introducing new nonpostal services. It required the PRC to review each nonpostal service the Postal Service already offered, to determine whether it should continue based on (1) the public need for the service and (2) the ability of the private sector to meet the public need for the service. The PRC ultimately authorized 14 nonpostal services to continue, which the Postal Service has since reduced to 10.[19]

Under the rules set out in PAEA, the Postal Service can conduct tests of experimental products. To qualify, a product must be significantly different from any current Postal Service product, not cause market disruption to any mailers, and be classified as either market dominant or competitive. Anticipated revenues from the product must be below $10 million annually.

Congress has recently taken up postal legislation, addressing many issues, including the provision of nonpostal services. As part of that process, there may be some loosening of current constraints on Postal Service activities. For example, Senator Tom Carper's bill, S. 3831, introduced in fall 2010, would allow the Postal Service to offer

---

[18] See, for example, U.S. Government Accountability Office, *U.S. Postal Service: Legislation Needed to Address Key Challenges*, Testimony No. GAO-11-244T, December 2, 2010, http://www.gao.gov/new.items/d11244t.pdf and U.S. Congressional Research Service, *Postal Accountability and Enhancement Act*, by Kevin R. Kosar, Report No. RS22573, January 22, 2007,
http://waxman.house.gov/UploadedFiles/The_Postal_Accountability_and_Enhancement_Act.pdf.
[19] See PRC Docket No. MC2008-1 (often referred to as the "nonpostal services case") and "Review of Nonpostal Services Language," *Federal Register* 75, No. 93 (May 14, 2010), pp. 27375–27377 for a list of the nonpostal services the Postal Service offers.

nonpostal services. However if such new authority is eventually granted, it might come with constraints. For example, both the Government Accountability Office (GAO) and the PRC chairman raised concerns about granting the Postal Service an unregulated return to nonpostal activities at a December 2010 Senate oversight hearing. They both urged some sort of safeguards in the Carper legislation.

The GAO raised similar concerns about allowing the Postal Service to enter nonpostal areas in an April 2010 report:

> Allowing the Postal Service to diversify into nonpostal activities would raise a number of issues, including whether it should engage in nonpostal areas where there are private-sector providers and, if so, under what terms. Other issues relate to concerns about unfair competition; whether the Postal Service's mission and role as a government entity with a monopoly should be changed; as well as questions regarding how it would finance its nonpostal activities, what transparency and accountability provisions would apply; whether the Postal Service would be subject to the same regulatory entities and regulations as its competitors; and whether any losses might be borne by postal ratepayers or the taxpayer.

These concerns are juxtaposed with worries about what could happen to the Postal Service without changes in postal policy, as also noted by the GAO:

> As communications and the use of the mail evolve, Congress will need to revisit policy issues related to the Postal Service, the services it provides, and how to best position the organization for the future. The current crisis presents the opportunity to act and position this important American institution for the future. If no action is taken, the risk of the Postal Service's insolvency and the need for a bailout by taxpayers and the U.S. Treasury increases.[20]

Two policy imperatives, which are possibly in conflict, have informed the debates over whether the Postal Service should offer nonpostal services. On one hand, there are concerns that the Postal Service could unfairly tap its monopoly benefits and protections when launching new services, since its infrastructure and workforce are primarily paid for by revenues from its monopoly products and services. On the other hand, the Postal Service is facing a new environment in which its monopoly revenues are no longer sufficient to cover its fixed costs, and revenues from nonpostal services, including digital products, might be needed to fund universal service. Therefore, the financial situation framing the debate could be significantly different from earlier discussions of this issue.

---

[20] U.S. Government Accountability Office, *U.S. Postal Service: Strategies and Options to Facilitate Progress toward Financial Viability*, Report No. GAO-10-455, April 12, 2010, http://www.gao.gov/new.items/d10455.pdf.

The Postal Service as a Digital Platform

As detailed in the paper, the Postal Service has functioned as a platform in its traditional role providing a physical infrastructure throughout the United States – even though its role has not typically been understood as such. From a policy perspective, can the Postal Service play a similar role in the digital space? This section first analyzes this question from a general policy perspective and then applies the policy checklist to assess the digital platform.

General Considerations

There appears to be a need for some entity to provide a digital platform with the trademark characteristics — affordability, reliability, universal accessibility, privacy, confidentiality, and security — of the Postal Service physical platform. In many ways, providing a platform to enable distribution of digitized products freely and effectively would be a logical extension of the Postal Service's traditional role in the physical world.

The Postal Service Continues Its Role as a Physical Platform

As noted earlier, affordability has been a hallmark of the Postal Service, both to customers utilizing the system, and to American taxpayers in general. During the decade or so in which postal reform was debated and PAEA passed, the twin concerns of affordability of service to consumers and the cost to the nation of providing postal services played key roles. They resulted in the decision to make the Postal Service a self-sustaining entity that did not rely on public monies to operate. Today, with chronic Postal Service losses and endemic strains on the U.S. budget that could make new postal subsidies an unlikely prospect, affordability concerns are again playing a key role in discussions of the Postal Service's future. Creating a digital platform and introducing more digital products could be one way to generate new revenues, while avoiding the need for government subsidies. Revenues from a digital platform could offset some of the costs of the physical network the Postal Service will need to maintain to reach core segments and provide needed traditional services.

The Postal Service Is Both a Digital and Physical Platform with Positive Synergistic Effects

Taken together, these factors make a compelling case that it is in the public interest for the Postal Service to pursue a broader digital strategy complementing its physical network. For the near future, the Postal Service mission will remain binding the nation together by acting as a low-cost, efficient platform for facilitating correspondence and commerce. To accomplish that mission, the Postal Service's physical infrastructure will be needed. This could be augmented with a digital platform offering the same core characteristics — affordability, reliability, universal accessibility, security — the Postal Service has provided in the physical world.

Evaluation of Digital Applications

Each of the prospective digital applications must be evaluated based on the public policy criteria described in the guiding principles of the overall strategy. These include determining whether the opportunity is in the public interest, considering whether the Postal Service would be in direct competition with the private sector, how it relates to the USO, and if a policy change would be necessary. Two other questions, including an assessment of whether the application fits the definition of a postal service under current law and analyzing the feasibility of the application, are not part of this study, though policymakers and postal executives will need to consider them.

Digital Application: eMailbox Coupled Physical and Digital Addressing

<u>Public interest</u> – As the foundation of the postal platform, coupled addressing would further the efficient delivery of communications and commerce and would create a mechanism for bridging the physical and electronic worlds. Such a service might also help bring nondigital denizens into the digital world.

<u>Competition with private sector and appropriate role for the Postal Service</u> – As described in the paper, there have been some private attempts to couple physical and digital addresses. These have not yet been commercially successful. The Postal Service maintains the U.S. physical address database and has sole access to every U.S. mailbox, so there appears to be a legitimate role for it in a coupled addressing initiative.

<u>The Postal Service mission and USO</u> – Coupled addresses would support the Postal Service mission and USO, in particular, by creating a bridge between the physical and electronic worlds.

<u>Possible changes in policy</u> – As noted, the definition of "ancillary" has not been tested legally with respect to postal services. Therefore, it is unclear whether any changes in statute would be required for the Postal Service to pursue coupled physical and digital addresses.

Digital Application: eGovernment Services

<u>Public interest</u> – Development of an eGovernment platform would serve the public interest in multiple ways. It would augment and support the Postal Service's continuing physical operations, provide a vehicle for effectively reaching all U.S. denizens with necessary communications and services, and contribute to overall government efficiency.

<u>Competition with private sector and appropriate role for the Postal Service</u> – Arguably, there are no private sector companies providing a comprehensive digital platform characterized by affordability, reliability, universal accessibility with the reach and

security of the Postal Service. While there are several government agencies with some jurisdiction over digital matters, none fills this role.

The Postal Service mission and USO – The eGovernment platform, supported by the Postal Service's continuing physical network, would help bind the nation together. It would provide affordable access to all Americans through a combination of digital and physical outreach. The Postal Service already provides eGovernment services in the form of passport applications, which combines providing a government service with identity validation.

Possible changes in policy – No statutory changes would be needed for the Postal Service if it were to pursue eGovernment services offering.

Digital Application: Tools for Identity Validation, Privacy Protection, and Financial Security

Public interest – The "Wild West" nature of the digital world creates significant risks for users. Minimizing some of the greatest risks would be in the public interest. The Postal Service's protection of identity management, privacy, and financial transactions in the physical world has clearly served the public interest. There is a perceived need for these same protections digitally.

Competition with private sector and appropriate role for the Postal Service – Some private companies provide security tools for the electronic world. There are also many advocates for maintaining the current unregulated digital environment. Notwithstanding these facts, security is generally a government function and a public good, so there may be a role for the Postal Service in enforcement. However, other federal agencies (such as the Federal Communications Commission) have more experience dealing with these issues. Thus, it is unclear whether the Postal Service is the sole U.S. agency that could, or should, play this role.

The Postal Service mission and USO – Security tools could support the Postal Service mission and USO if these concepts are extended to the electronic sphere and if the tools were to maintain or increase access to the digital world.

Possible changes in policy – It appears that the Postal Service may need new authority to proceed with identity validation, privacy protection, and financial security tools.

Digital Application: Hybrid and Reverse Hybrid Mail

Public interest – Hybrid mail and reverse hybrid mail services would further the efficient delivery of communications and commerce. They would also support the coupling of physical addresses with e-mail addresses using a top-level domain name such as .gov, .com, or the Universal Postal Union's new .post nomenclature.

Competition with private sector and appropriate role for the Postal Service – Private providers, including a number of Postal Service strategic partners, are already supplying

hybrid mail services. Further expansion into reverse hybrid mail seems to be a logical next step and could be accomplished through partnerships with existing providers.

<u>The Postal Service mission and USO</u> – Hybrid mail services could support the Postal Service mission and USO, particularly if these concepts are extended to embrace a combination of physical and electronic means of communication.

<u>Possible changes in policy</u> – It is unclear whether any changes in statute would be required for the Postal Service to pursue this initiative, as the Postal Service already offers a form of hybrid mail services.

Digital Application: Enabling eCommerce

<u>Public interest</u> – There are many gaps in eCommerce fulfillment, which redounds to the detriment of consumers and businesses. Filling these gaps would benefit both.

<u>Competition with private sector and appropriate role for the Postal Service</u> – There are many private sector companies providing various tools designed to minimize eCommerce gaps. However, none provides the type of platform the Postal Service could offer – one that would lend itself to multiple applications for filling gaps.

<u>The Postal Service mission and USO</u> – A digital platform, supported by the Postal Service's continuing physical network, would help bind the nation together. In particular, it would allow the Postal Service to collaborate with existing providers to further the growth of eCommerce. This would benefit both businesses and consumers.

<u>Possible changes in policy</u> – A statutory change is probably necessary to allow the Postal Service to undertake this initiative. However, if policymakers accept the rationale of a physical Postal Service platform that should be complemented by a digital one, they may be inclined to grant such authority.

Digital Application: Digital Concierge

<u>Public interest</u> – Many Americans feel overwhelmed by the volume of online information and may want to manage the present digital communication onslaught. However, if the Postal Service were to propose digital concierge services, it might provoke a debate similar to that over "do not mail" efforts in the physical world, with opponents and proponents adopting arguments similar to that debate. This makes it difficult to conclude there is a clear-cut public interest in this initiative.

<u>Competition with private sector and appropriate role for the Postal Service</u> – As noted in the paper, some private companies provide certain digital concierge capabilities. However, none offers the comprehensive suite of services discussed, nor do many private providers enjoy the level of trust accorded the Postal Service.

<u>The Postal Service mission and USO</u> – As in the case of the public interest question, it is unclear whether digital concierge services would be perceived to support the Postal

Service's mission and USO. On the one hand, proponents could argue that these services, which would be available to anyone, would increase the efficiency and efficacy of online communications. On the other hand, opponents could argue that digital concierge services would limit the ability to communicate online.

Possible changes in policy – The Postal Service would likely need new authority to pursue digital concierge services.

Digital Application: Digital Currency Exchange

Public interest – There is arguably a public interest in assisting the "unbanked" to conduct financial transactions.

Competition with private sector and appropriate role for the Postal Service – There are already many providers of financial services, some of which are targeted towards segments of the population that tend to be unbanked. Thus, there is a legitimate question whether this is an appropriate role for the Postal Service.

The Postal Service mission and USO – Providing financial services to underserved segments through the provision of prepaid debit or stored value cards could support the Postal Service's mission of binding the nation together and its obligation to reach all Americans. These services can be an extension of current money order and international money transfer (IMTS) product offerings and past offerings of stored value cards.

Possible changes in policy – The Postal Service would likely need new authority to pursue currency exchange services.