The USPS Global Card: A Conceptual Analysis of a Smart Card Platform

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Executive Summary

The digital revolution has radically transformed the world, driving innovation, improving interconnectedness, and providing instant access to information and knowledge. However, this rapid shift toward a more digital world is not without its imperfections. The fragmented nature of communications in the current digital landscape has left consumers open to substantial risk resulting from a lack of adequate infrastructure to secure transactions, assure privacy in communications, and allow integration of digital and physical messages and data. As the 21st century and the Information Age continue to evolve, there is an increasingly apparent need for a secure digital environment that respects consumer privacy while also improving the efficiency and convenience of daily transactions and information management.

Given its federally mandated mission to promote commerce, communication, and transactions to bind the nation together, in addition to its vast infrastructure and core competencies, the United States Postal Service is positioned to play a significant role in providing solutions to problems of the digital age. In its paper *The Postal Service Role in the Digital Age Part 2: Expanding the Digital Platform*, [1] the U.S. Postal Service Office of Inspector General (OIG) Risk Analysis Research Center (RARC) constructs a digital strategy for the Postal Service that would enable it to extend its physical platform into the digital sphere and "provide needed solutions through a suite of digital products and services."

This paper expands that analysis by introducing the concept of a Postal Service-offered smart card that could be called the "USPS Global Card." This postal-centric version of a smart card would not only provide consumers with an access key to current and future postal services and other government and commercial applications, but could be enhanced over time to also provide consumers with an increased level of security and privacy in daily transactions, information management, and data storage wholly unmatched by today's alternatives. Beyond security and privacy improvements, the smart card design would allow the Global Card to act as a conveniently portable platform for multiple application solutions including identification, authentication, and data storage, among others. The paper presents the following highlights:

1. The ongoing rapid shift toward digital communications, commerce, and transactions has left consumers' personal information exposed to misuse and fraud. The Postal Service Global Card would provide consumers with a secure and private, yet

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[1] U.S. Postal Service Office of Inspector General, *The Postal Service Role in the Digital Age Part 2: Expanding the Digital Platform*, Report No. RARC-WP-11-003, April19, 2011, http://www.uspsoig.gov/foia_files/RARC-WP-11-003.pdf.

convenient and efficient, option for performing daily transactions and storing data in both the digital and physical worlds.

2. To maximize seamless integration into consumer lifestyle, the Global Card would be offered in two formats: in a credit card-like form and integrated with a mobile phone's Subscriber Identity Module (SIM) card.[2] Either format would offer full functionality and serve consumer needs.

3. In recognition of the increasing trend toward consumer control in communications, the Global Card design is consumer-centric. While it is likely that other entities would provide similar products, they would not have the same consumer focus. The card itself is optional (upon request), as are all card applications. Similarly, the user chooses security and privacy settings based on personal preference and need.

4. The card's microprocessor and associated operating system would increase consumer convenience by enabling the user to load multiple applications onto the card, including, but not limited to postal, eGovernment, eCommerce, and data storage applications. Applications are segregated from one another ensuring data required by one application cannot be accessed by others.

5. To further increase the card's functional flexibility and convenience, the Global Card would be a dual-interface card, enabling data to be read from and written to using both contact and contactless card readers.

6. The Global Card could serve as an e-Identification system, thus acting as a solution to inadequate authentication measures in the digital and physical worlds. As a basic feature, this application would allow consumers to obtain two digital certificates, one to be used for electronic authentication, while the other provides the user with a digital signature.

7. Additionally, the Global Card would serve as an access key to current and future Postal Service products and services such as gopost.™ Perhaps most notably, the Global Card could be linked to a user's eMailbox, providing the user with increased privacy control in transactions requiring physical address information. Similarly, when linked to a user's eLockbox, the Global Card serves as a powerful, portable, secure storage tool for sensitive information.

8. The Postal Service is uniquely positioned to work with the federal government to provide eGovernment services to citizens. The Global Card could facilitate these services by providing a secure method of citizen identity verification and creating a way to receive and access government benefits, including Social Security payments, food stamps, and Medicare benefits, among others.

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[2] A SIM card is a type of smart card that stores data such as identity, phone number, contact lists, and network authorization for Global System for Mobile (GSM) communication cellular telephone subscribers. In addition to improving security for subscribers through features such as authentication and encryption, a SIM card can be conveniently switched from one phone to another, transferring the user's data with it.

9. The functional possibilities of the card are endless. As an open and flexible platform, the Global Card is intended to provide third parties with an appropriate forum to innovate and provide consumers with any number of useful applications.

10. As a smart card, the Global Card offers consumers an increased level of security and privacy unmatched by traditional magnetic stripe cards as well as online username and password identity management systems, rendering it a powerful antifraud and identity theft prevention tool. It would employ advanced encryption to transfer information to and from the card.

11. The Global Card allows for a number of security and privacy control precautions to be established, thereby further increasing security and privacy in digital and physical transactions. These include, but are not limited to, multifactor authentication, use of biometric indicators in identity verification, data encryption, and enabling binary response authentication.

12. Current Postal Service infrastructure, including its nationwide physical presence, its online access point, and its law enforcement element, provide immediate assistance and protection against fraud and identity theft in the event of a lost or stolen card.

The Postal Service would be one of a number of multifunction smart card providers on the market. However, its features would set it apart from others: meeting the needs of the underserved, operating as a gateway to e-government, and offering a level of legal standing that many cards cannot provide.

This paper presents a unique opportunity for the Postal Service to leverage its valuable assets and its mandated role in the communications infrastructure, while also improving the quality of life for American citizens in a rapidly changing and mobile world. The USPS Global Card would offer consumers a solution to security and privacy concerns while also improving convenience and efficiency in daily transactions and data storage and management.

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Introduction

The digital revolution has radically transformed the world, driving innovation and improving interconnectedness and instant access to information and knowledge. The U.S. Postal Service Office of Inspector General Risk Analysis Research Center (RARC) is presently involved in a comprehensive research effort intended to examine the impact of the digital revolution on communications and commerce and how the Postal Service may leverage its infrastructure and competencies to better support the increasingly digital world. The first of these papers, *The Postal Service Role in the Digital Age Part 1: Facts and Trends*,[3] finds that, while the digital revolution has afforded individuals greater convenience and efficiency in daily communications and transactions, it has simultaneously given rise to a number of security and privacy concerns. As a growing volume of services and activities go digital, individuals control less of their personal data, inadvertently exposing private information to misuse or fraud.

The Postal Service could help counteract some of these ongoing privacy and security concerns in conjunction with its new gopost™ parcel locker network. To provide customers access to the parcel locker stations' services, the Postal Service has announced its intention to use a card system. However, rather than adopting a single-function card, a chip-embedded smart card system may offer the Postal Service a better opportunity to leverage its existing infrastructure and competencies. The smart card envisioned would not only provide access to the gopost network, but could also provide customers with an access key to the postal infrastructure and a wide range of other current and future services. Furthermore, the higher security and privacy afforded by the smart card design would allow the card to act as a conveniently portable platform for multiple application solutions including identification, authentication, and data storage, among others.

This concept paper explores the potential design and functionality of a Postal Service–offered smart card. The multiple applications and security features of the card are guided by its intended purpose: to provide consumers with a secure and private, yet convenient and efficient, option for performing daily transactions and data storage in both the digital and physical worlds.

Product Description

The term "smart card" refers to a plastic card containing an embedded computer chip that stores and processes data and conducts business transactions. Smart cards often resemble credit cards in size and shape, although smart card technology is also

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[3] U.S. Postal Service Office of Inspector General, *The Postal Service Role in the Digital Age Part 1: Facts and Trends*, Report No. RARC-WP-11-002, February 24, 2011, http://www.uspsoig.gov/foia_files/RARC-WP-11-002.pdf.

frequently used for telecommunications applications in Subscriber Identity Modules (SIM). Smart card systems can vary widely from one another depending on the type of chip embedded in the card, the type of data stored on the card, and how that data is written and retrieved.

The purpose of the Global Card is to provide users with an option to improve security and privacy in daily transactions in both the physical and digital worlds, while also increasing the efficiency and convenience with which these transactions are executed. With this purpose in mind, the Global Card would resemble a credit card in size and shape so as to be easily incorporated into a user's daily activities. However, to maximize the card's flexibility as well as its appeal to a variety of consumer preferences, it could also be integrated into mobile phone's SIM card. While the latter of these options is likely to appeal to a younger, more mobile device-savvy population, it offers all consumers the opportunity to further increase the utility of mobile phones in daily transactions and data management.[4] Either format would offer the full function and serve consumer needs.

> *The purpose of the Global Card is to provide users with an option to improve security and privacy in daily transactions in both the physical and digital worlds.*

Additionally, the card, whether offered in a credit card-like form, as a SIM card, or both, would contain a microprocessor that would allow it to both manage and process data. Much like a personal computer, the Global Card would organize data into the appropriate file; each file is, in turn, associated with an application. By compartmentalizing data into files, the card enables access control, allowing each application to access only the data essential to its purpose. For example, when making a purchase online, the eRetailer would only be granted access to the credit card information specified by the user; access to other stored information, such as the consumer's medical records or a pointer to those records, would be prohibited and vice versa. Rules regarding data security through application segregation and other basic platform-level security features such as encryption are typically controlled and enforced by the smart card's operating system.

Given a rising interest in multi-application smart cards, there are currently a number of readily available operating systems to choose from when designing the Global Card. Beyond the basic security afforded by compartmentalizing data and ensuring the segregation of applications, the multifunctionality of the Global Card also affords much greater convenience as it allows users the option to consolidate multiple cards into one.

Typically, smart cards rely on an external card reader to interface with a PC for most transaction needs, including reading and writing to the card. The Global Card would be a dual-interface card, which allows for communication between the card's single microprocessor and a reader via both contact and contactless devices.[5] Contact communication requires a physical connection between the smart card and a card reader. This type of communication is most commonly used for ID and stored value applications. Contactless communication, on the other hand, relies on a radio frequency to connect to
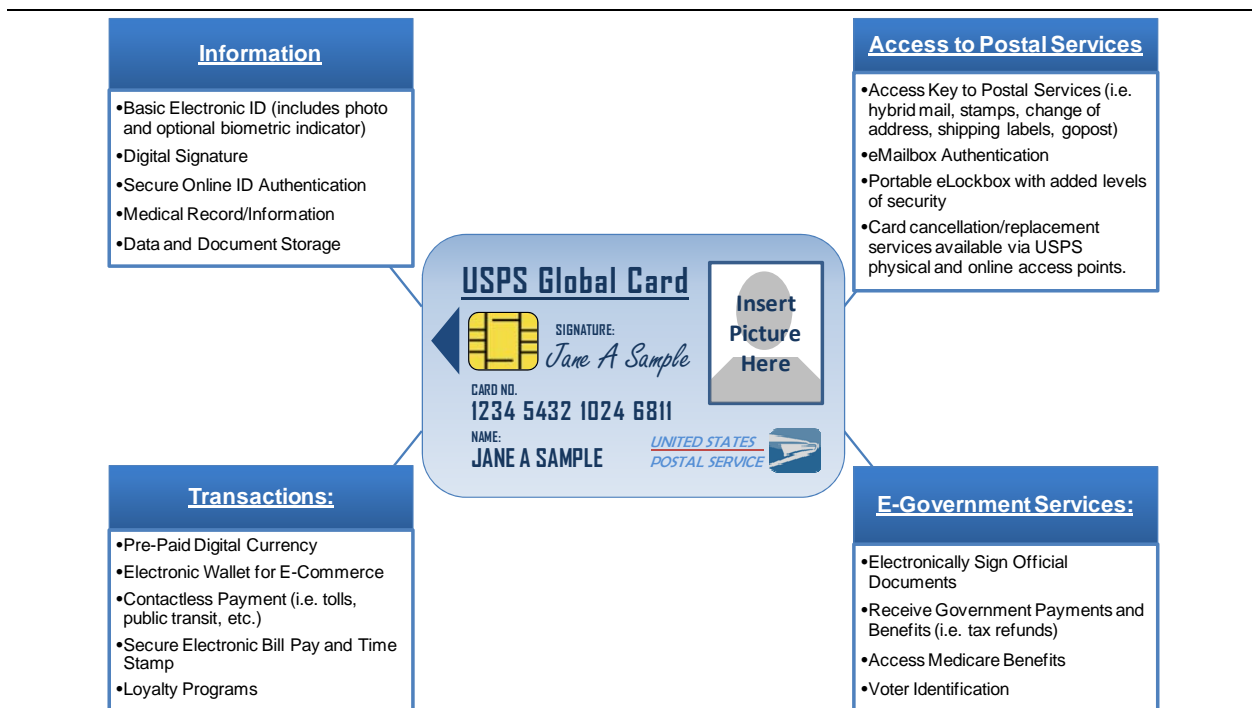
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[4] Service would likely require a partnership with wireless providers.
[5] Development of such an application would need to be compatible with technology specifications such as ISIS or Google Wallet.

the card and is most commonly used with payment and physical access control applications. Allowing for multiple modes of communication ensures the card's functional flexibility. Finally, given that card functions are likely to change as new applications become available, the card would optimally have a dynamic application operating system, which would allow updates and other changes to be downloaded after card issuance, as they become available.

Figure 1: The USPS Global Card

Information
- Basic Electronic ID (includes photo and optional biometric indicator)
- Digital Signature
- Secure Online ID Authentication
- Medical Record/Information
- Data and Document Storage

Access to Postal Services
- Access Key to Postal Services (i.e. hybrid mail, stamps, change of address, shipping labels, gopost)
- eMailbox Authentication
- Portable eLockbox with added levels of security
- Card cancellation/replacement services available via USPS physical and online access points.

Transactions:
- Pre-Paid Digital Currency
- Electronic Wallet for E-Commerce
- Contactless Payment (i.e. tolls, public transit, etc.)
- Secure Electronic Bill Pay and Time Stamp
- Loyalty Programs

E-Government Services:
- Electronically Sign Official Documents
- Receive Government Payments and Benefits (i.e. tax refunds)
- Access Medicare Benefits
- Voter Identification

USPS Global Card
SIGNATURE: Jane A Sample
CARD NO. 1234 5432 1024 6811
NAME: JANE A SAMPLE
Insert Picture Here
UNITED STATES POSTAL SERVICE

Source: OIG Analysis

The multifunctionality of the Global Card, in combination with its ability to communicate via contact and contactless readers and its capability to be updated dynamically, ensures that the card will be able to act as a platform for multiple application solutions. However, it is important to note that the addition of each of these features will likely increase the card's cost of production. Finally, the digital revolution has undoubtedly empowered consumers, enabling them to choose how and with whom they transact and communicate based on personal preferences. The Global Card would closely follow this trend. Consumer choice will drive this offering. The card itself would be optional, as would each of its applications and security and privacy settings.

Figure 1 illustrates the Global Card in its credit card-like form and identifies its basic features and functionalities. Each of these will be discussed in greater detail in the following sections of this paper.

Basic Features

While the digital revolution has had many positive socioeconomic impacts, it has also been synonymous with a rise in security and privacy concerns. In the digital sphere, these concerns often surround the lack of adequate authentication measures. The Global Card could potentially offer a solution to this problem by serving as a portable electronic identification (eID) system.

In addition to containing stored basic information about the user, such as name, date of birth, and physical residence, as an eID, consumers could also have the option of obtaining two digital certificates. One would be used for electronic authentication, while the other would provide the user with a digital signature; both certificates would be stored on the card's microprocessor. The eID function of the Global Card could then be used by any number of other public and private sector applications through partnership agreements including signing income tax declarations, providing medical records, accessing both federal and local government services, and making purchases (especially for peer-to-peer transactions).

Consumers could also have the option of obtaining two digital certificates, one to be used for electronic authentication, while the other provides the user with a digital signature.

A number of foreign countries are presently exploring the use of eID cards as a platform for a broad range of services (see Table 1 for a sample of countries implementing an eID system). A more in depth analysis of the Global Card may involve further exploration of foreign eID systems to better understand the benefits and obstacles of an eID application.

Table 1: eID Systems in Other Countries

Country	Digital Authentication	Digital Signature	Government Services	Biometric	Health Records	Transactions/ Financial	Mobile	Private Sector Alternative
Austria	✓	✓	✓		✓	✓	✓	
Belgium	✓	✓	✓					
Denmark		✓	✓			✓		
Estonia	✓	✓					✓	
Malaysia	✓		✓	✓		✓	✓	
Norway	✓		✓				✓	✓
Saudi Arabia	✓			✓				

Source: OIG Analysis based on *Explaining International Leadership: Electronic Identification Systems*, 2011.

The Global Card would additionally serve as the access key to current and future Postal Service infrastructure and services. For example, the card could be used to access gopost or authenticate a user to perform a change of address. Additionally, the card could be used in reverse hybrid mail applications or the purchase of stamps. With regard to future services, the card, in combination with its eID functions, could be used in authentication and credentialing for the eMailbox system proposed and defined by RARC

in its white papers, the *Postal Service Role in the Digital Age Part 2: Expanding the Postal Platform*[6] and *eMailbox and eLockbox: Opportunities for the Postal Service.*[7] The secure nature of the Global Card would render it a natural extension of the RARC proposed eLockbox, providing a conveniently portable version of the data storage service, accessible at any PC or smart phone with a smart card reader.

Optional Features

The Global Card is intended to be an open and flexible platform, encouraging innovation and the development of additional applications by third parties. As with any platform, the success of the Global Card will be defined by positive network effects.[8] In order to obtain a critical mass, the Postal Service is uniquely positioned to work with other government agencies to invest in optional eGovernment applications for its smart card product. For example, users could opt to receive tax refunds, Social Security checks, food stamp credits, and other government benefits via the Global Card. The card's digital signature function could be used to sign official documents such as a passport form, as well as a tool for other innovative eGovernment services such as online voting.

The Global Card is intended to be an open and flexible platform, encouraging innovation and the development of additional applications by third parties.

The digital revolution has sparked a retail shift toward the buying and selling of goods through eCommerce. As the shift continues, the card would fill the need for a reliable, private, and secure method for both consumers and sellers to authenticate one another. Additionally, the card could serve as an eWallet, allowing consumers to store information, such as credit card accounts, and cash needed for purchasing products online or in person. Finally, the Global Card could offer consumers a convenient way to consolidate multiple-vendor loyalty programs onto a single, easy-to-manage card.

Once again, given the increased security of smart cards relative to magnetic stripe cards (or the user and password identity management system traditionally used online), the Global Card could offer a valuable vehicle for secure and portable data storage with processing capability. For example, a user's healthcare and medical records, in addition to insurance information, could be stored and updated on the Global Card. Beyond its day-to-day convenience, such an application could be invaluable in the event of an emergency when quick access to one's medical history is needed.

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[6] U.S. Postal Service Office of Inspector General, *The Postal Service Role in the Digital Age Part 2: Expanding the Digital Platform*, Report No. RARC-WP-11-003, April 19, 2011, http://www.uspsoig.gov/foia_files/RARC-WP-11-003.pdf

[7] U.S. Postal Service Office of Inspector General, *eMailbox and eLockbox: Opportunities for the Postal Service*, Report No. RARC WP-12-003, November 14, 2011, http://www.uspsoig.gov/foia_files/RARC-WP-12-003.pdf.

[8] Positive network effects are present when the value of the network to its users increases as the network's user base grows.

There are numerous other applications that could be optionally loaded onto the Global Card should the user opt for them. For example, the card could serve as an ID and access key for university students, including such features as physical and network access to university resources for authorized students. An eAllowance application or prepaid card capability could provide parents with a convenient way to manage student spending and perform card fund-loading and reloading with cash or electronic fund transfer as needed. Alternatively, the Global Card could serve as a single sign-on access key in partnership with state and local governments, providing services such as paying traffic and parking citations, water bills, or property taxes. Additionally, the Global Card could be used as identification for public transportation and toll payment accounts, similar to an E-Z Pass Toll card.

The Global Card would be consumer-centric; allowing users to opt into applications based on personal preference and need.

The functional possibilities of the card are endless. As an open and flexible platform, the Global Card is intended to provide third parties with an appropriate forum to innovate and provide consumers with any number of useful applications, some of which have been mentioned above, while many others have yet to be imagined. It is, however, also important to emphasize that the Global Card would be consumer-centric, allowing users to opt into applications based on personal preference and need. The Global Card would offer greater convenience and efficiency in both physical and digital transactions than many currently available options, while also providing a vehicle for the secure storage of a user's personal and account information.

Security

In addition to their convenience, smart cards offer an increased level of security and privacy unmatched by traditional magnetic stripe cards and online username and password identity management systems. By storing information internally, rather than externally, smart cards are significantly more difficult to duplicate than their magnetic stripe counterparts. Similarly, authentication by smart card eliminates much of the risk associated with identity theft due to user error such as poor password choice and repeated passwords across multiple accounts. As a result, a USPS-offered smart card could provide consumers with a powerful antifraud and identity theft prevention tool.

A USPS-offered smart card could provide consumers with a powerful antifraud and identity theft prevention tool.

There traditionally has been a strong cultural inclination in the United States to reject a centralized, government-sponsored ID management system. Therefore, it will be necessary to clearly communicate the security and privacy benefits of the Global Card, as well as to set up a strong policy infrastructure that supports and maintains these benefits before card implementation. Additionally, in accordance with the trend toward consumer-centric communications and transactions, providing consumers with complete control and choice over card security and privacy settings beyond those defined by the card's operating system would also likely mitigate potential apprehension regarding a USPS-offered Global Card.

For example, by allowing users to choose from several scalable security and privacy-level options, ranging from a low to high-level, and to further personalize these settings based on individual preference, the consumer maintains absolute control over the information stored on the card, including the type of information, whether that information is backed-up, and where that back-up occurs. Specifically, if a user opts for a higher-level security setting that requires use of a biometric indicator, such as a thumbprint to access sensitive files, the user may also choose whether this print is stored solely on the card or also backed-up in an external government database.[9]

There are numerous other ways smart cards such as the proposed Global Card can increase privacy and security for both physical and digital transactions. For example, a smart card enables multifactor authentication in transactions and access control. Multifactor authentication refers to the use of two or more authentication factors, which may include something the user knows (e.g., password or PIN) or something the user is (e.g., biometric characteristic such as a thumbprint), in addition to something the user has (e.g., the Global Card) before the card can be accessed or used in a transaction.

Additionally, the Global Card may limit the amount of data that is revealed in transactions. Specifically, the card may be setup to provide binary (e.g., "yes" or "no") responses to questions by an outside party about the user's identity or some attribute of that identity. For example, when confirming that a person is 21 years old, the answer returned to the questioning party would be "yes" or "no"; divulging one's date of birth is not necessary. Similarly, because the Global Card enables users to link their digital or eMailbox address to their physical address, users may maintain physical address anonymity by providing the digital equivalent in transactions requiring physical address authentication. Regardless of communications mode, the card would have to employ superior encryption to maintain security.

Smart cards also allow for a number of other security and privacy control precautions to be established. In particular, smart cards provide a greater level of access control by enabling users to restrict data released to authorized service providers. For example, a user could specify that medical records only be released to or updated by his/her personal doctor. Additionally, stored and transmitted data may be encrypted so that only parties with a valid key may access the data. Biometric data such as a thumbprint may also be stored on the card to be used in authentication procedures in an effort to reduce identity theft.

In terms of redundancy and back-up considerations, given the large amount and sensitivity of the data that could be stored on the Global Card, the user may choose whether or not the card's memory should be backed-up and where that back-up should be stored. Because the embedded chip is a microprocessor, data stored on the card is segmented, preventing unauthorized applications from accessing another application's data and enabling users to choose varying levels of security on a file-by-file basis.
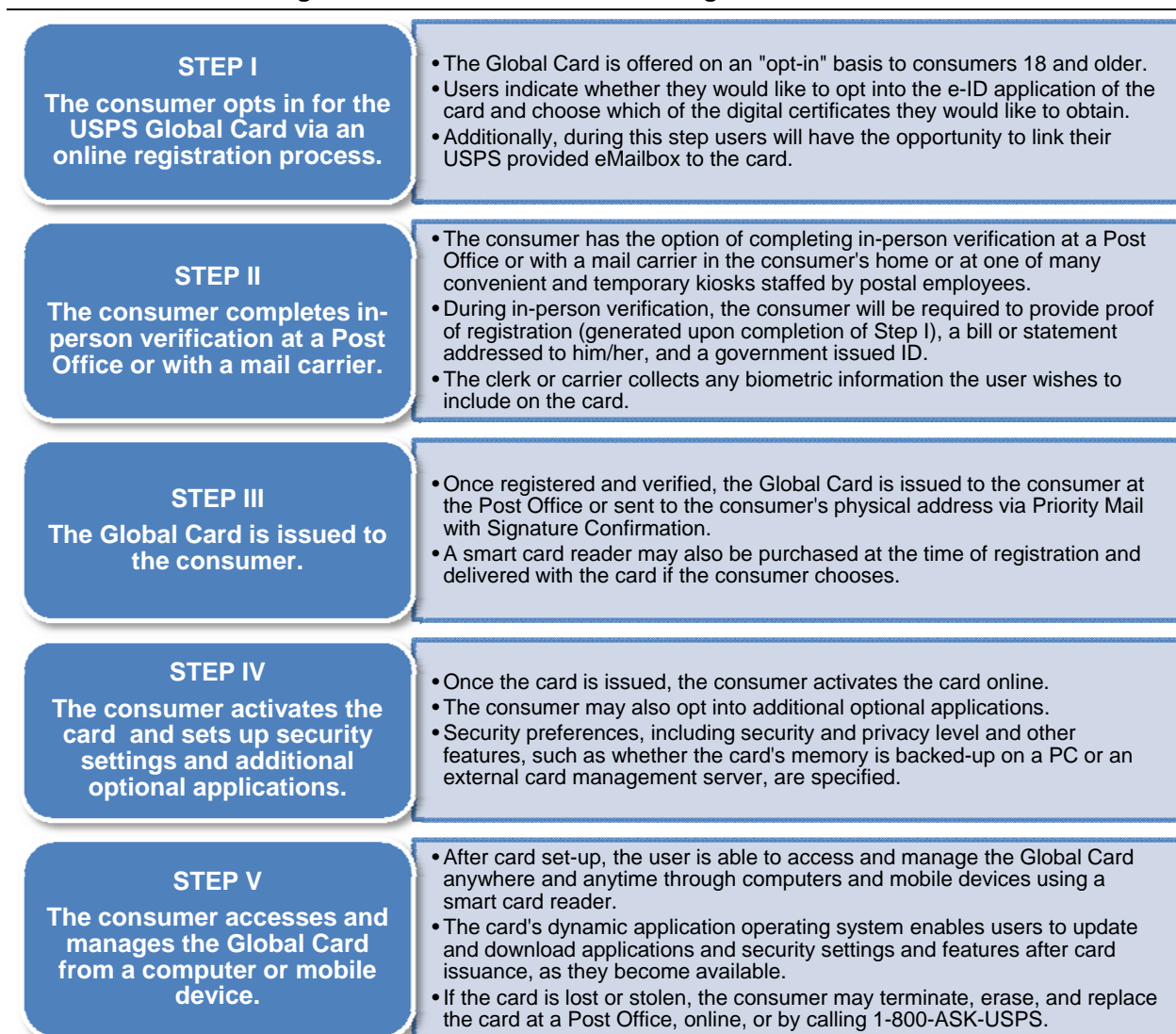
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[9] Daniel Castro, *Explaining International Leadership: Electronic Identification Systems*, The Information Technology & Innovation Foundation, September 2011, http://www.itif.org/files/2011-e-id-report.pdf.

Finally, the Postal Service is well-positioned to provide Global Card users with a level of security consistent with the needs of any card carrying sensitive, personal information. First, a readily available, multichannel infrastructure is accessible to users needing to report a lost or stolen card through the well-established physical presence of Post Office locations across the country, the Postal Service online access point at usps.com, and via 1-800-ASK-USPS. Second, the Postal Service's law enforcement component uniquely provides a legally authorized and experienced mechanism through which Global Card consumers would be protected against criminal intent such as fraud or identity theft.

The Registration Process

Should the Postal Service choose to pursue a multifunction smart card product such as the Global Card, Figure 2 presents each step in the card registration process:

Figure 2: The USPS Global Card Registration Process

STEP I **The consumer opts in for the USPS Global Card via an online registration process.**	• The Global Card is offered on an "opt-in" basis to consumers 18 and older. • Users indicate whether they would like to opt into the e-ID application of the card and choose which of the digital certificates they would like to obtain. • Additionally, during this step users will have the opportunity to link their USPS provided eMailbox to the card.
STEP II **The consumer completes in-person verification at a Post Office or with a mail carrier.**	• The consumer has the option of completing in-person verification at a Post Office or with a mail carrier in the consumer's home or at one of many convenient and temporary kiosks staffed by postal employees. • During in-person verification, the consumer will be required to provide proof of registration (generated upon completion of Step I), a bill or statement addressed to him/her, and a government issued ID. • The clerk or carrier collects any biometric information the user wishes to include on the card.
STEP III **The Global Card is issued to the consumer.**	• Once registered and verified, the Global Card is issued to the consumer at the Post Office or sent to the consumer's physical address via Priority Mail with Signature Confirmation. • A smart card reader may also be purchased at the time of registration and delivered with the card if the consumer chooses.
STEP IV **The consumer activates the card and sets up security settings and additional optional applications.**	• Once the card is issued, the consumer activates the card online. • The consumer may also opt into additional optional applications. • Security preferences, including security and privacy level and other features, such as whether the card's memory is backed-up on a PC or an external card management server, are specified.
STEP V **The consumer accesses and manages the Global Card from a computer or mobile device.**	• After card set-up, the user is able to access and manage the Global Card anywhere and anytime through computers and mobile devices using a smart card reader. • The card's dynamic application operating system enables users to update and download applications and security settings and features after card issuance, as they become available. • If the card is lost or stolen, the consumer may terminate, erase, and replace the card at a Post Office, online, or by calling 1-800-ASK-USPS.

Source: OIG Analysis

Business Model

Though this paper outlines a wide range of potential applications, not all of these would have to be launched simultaneously. Depending on cost, complexity, and technology requirements, services utilizing the Global Card platform could be phased in over time. The card's liability would have to be designed to minimize risk to the Postal Service as well as assigning liability to partners when appropriate.

Critical to the launch of any new product is the potential for financial viability. The Global Card should eventually generate a new line of revenue which could be developed through two sources. First, consumer fees would be generated from a variety of services provided through the card. The basic card could either be issued for a minimum charge and would include services such as electronic identification, a digital signature, authentication/credentialing for an eMailbox, and serving as an access key for postal services. However, additional fees could be charged for optional or add-on services including the incorporation of biometric data, card insurance and replacement, archiving and/or mobile storage, redundancy/back-up services, currency transaction fees for depositing or cashing digital money, and use for contactless payment such as the Washington Metro's Smartrip card or the popular E-Z pass toll card.

A second and potentially more lucrative source of revenue is through partners interested in providing additional services on the card. Such an arrangement would also help to mitigate risk at a time when the Postal Service is continuing to operate at a significant loss. Revenue sharing, an area in which the Postal Service already has significant experience, is possible in a wide range of products including loyalty programs (e.g., hotels, airlines, grocery stores); digital currency partners such as Visa, Moneygram, and PayPal; healthcare and insurance companies; and even federal, state, and local governments who want to use the card's digital signature, authentication, and identity binding features to conduct on-line business with citizens. The Postal Service could share proceeds with partners from those services that customers select.

The Global Card will not be the only multifunction smart card on the market for consumers. Other providers will offer similar functions and services. The core purposes of the card – an address-based digital authentication tool providing postal services, a gateway to eGovernment, and digital services to the underserved – is parallel to the services that the Postal Service has provided in the physical world.

Conclusion

The Postal Service holds a unique position that will present it with numerous opportunities to bridge the market gaps and shortcomings of the current Internet-based economy. The Global Card offers one solution to today's inadequate security and privacy settings in digital and even physical communications and transactions, while also improving the convenience and efficiency with which these transactions are executed. This paper presents a unique opportunity for the Postal Service to leverage its valuable assets and its mandated role, while also improving the quality of life for American citizens in a rapidly changing and increasingly mobile world.