



# **Peer-to-Peer Commerce and the Role of the Postal Service**

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# Peer-to-Peer Commerce and the Role of the Postal Service

## Executive Summary

Peer-to-peer commerce is a large and growing segment of retail e-commerce, which had overall estimated revenues of \$200 billion in 2011 and is expected to grow more than 60 percent through 2016.<sup>1</sup> Peer-to-peer commerce empowers individuals to buy and sell new and used goods to each other, as well as to rent private vacation properties and cars, and to procure other services up the street, across town, or around the world. Individuals may transact directly with each other after making initial contact through a facilitator or potentially by linking through social networks. This creates a “virtual bazaar.”

Many postal services are already used in peer-to-peer markets, and the U.S. Postal Service has opportunities to further grow these and develop line extensions. The Postal Service is positioned to play a positive role in filling market gaps, focusing on complementary support services. Peer-to-peer commerce requires confidence in the parties involved, yet buyers and sellers are likely unknown to each other even indirectly. The Postal Service can expand its reputation from traditional services into peer-to-peer digital transactions. The Postal Service's reputation includes a high level of trust it has embodied over more than two centuries.

Peer-to-peer markets are immature and changing rapidly. Market participants, including facilitators, face the challenge of balancing convenience, privacy, and the risk of potentially becoming victims of financial crimes and physical violence. Despite ongoing market attempts to address these issues, many shortcomings and challenges remain that can discourage participants and slow the growth of innovation and commerce.

One of the key challenges for both buyers and sellers in peer-to-peer markets is maintaining the option of keeping anonymity while demonstrating their authenticity in transactions and having confidence that the other party is legitimate. A Postal Service digital identity and authentication service would help ameliorate these fears and increase trust in overall market transactions.<sup>2</sup> Additionally, a Postal Service trustmark for e-businesses would indicate that the identity of market participants has been vetted or authenticated. This would raise the reputation capital of sellers and, in turn, increase the confidence of buyers.

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<sup>1</sup> Sucharita Mulpuru, *US Online Retail Forecast, 2011 to 2016*, Forrester Research, February 27, 2012. Rachel Botsman, co-author of *What's Mine Is Yours: The Rise of Collaborative Consumption*, projected in 2011 that renting and sharing could ultimately be a \$110-billion or more market as described by Danielle Sacks, “The Sharing Economy,” *Fast Company*, April 18, 2011, <http://www.fastcompany.com/1747551/sharing-economy>.

<sup>2</sup> See U.S. Postal Service Office of the Inspector General, *Digital Identity: Opportunities for the Postal Service*, Report No. RARC-WP-12-011, May 29, 2012, [http://www.uspsoidg.gov/foia\\_files/RARC-WP-12-011.pdf](http://www.uspsoidg.gov/foia_files/RARC-WP-12-011.pdf).

The Postal Service could also provide related protections and assurances for parties in such transactions, including an electronic extension of its Collect on Delivery (COD) service — Digital COD. Another offering could be a Digital Escrow service. The two services would be similar, but offer different options to buyers and sellers. These new services could be used in combination with current services, such as insurance and digital currency payment options.<sup>3</sup>

- Digital COD would involve the Postal Service acting as an intermediary to ship and deliver the product ordered and take payment from the buyer upon the buyer's receipt of the product. The Postal Service would transmit payment to the seller electronically, via credit or debit card, money order, or possibly digital currency from the Postal Service, less a commission. This service would help avert buyer anxiety over paying for an item that is subsequently delayed in shipping, a complaint of some peer-to-peer customers, or even worse, not shipped at all.
- Digital Escrow would be a fee-based service in which, upon purchasing an item or service, the buyer would place payment in a protected escrow account held by the Postal Service. Upon receipt and acceptance of the item (or service), the buyer would authorize release of payment by the Postal Service to the seller. If the item is received broken or the buyer does not accept it for other reasons, the Postal Service would inform the seller of the order status and refund payment to the buyer after receipt of goods at the seller.

Digital COD and Digital Escrow could discourage fraud and also help streamline the order-returns-reorder process. Current postal ancillary and special services, both physical and digital, are well suited to the peer-to-peer market. These include insurance, Registered Mail, Certified Mail, COD, Track and Trace, Return Receipt and Return Receipt for Merchandise, Restricted Delivery, and other services. In addition to its current physical shipping services, special services, and ancillary products, the Postal Service has already designed some web services that enable third-party integration. This permits established peer-to-peer facilitators, entrepreneurs, and individual innovators to take advantage of solutions from the Postal Service, thus facilitating ease-of-use for both buyers and sellers.

New solutions from the Postal Service are especially needed in local peer-to-peer transactions, as many of these transactions are less formal and provide less assurance than traditional market services. A digital identity service and other postal services for the peer-to-peer market would help solidify the Postal Service's role as a hub within the community for facilitating commerce in this important new marketplace.

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<sup>3</sup> This could serve the unbanked or underbanked populations in addition to a larger segment. See U.S. Postal Service Office of Inspector General, *Digital Currency: Opportunities for the Postal Service*, Report No. RARC-WP-12-001, October 3, 2011, [http://www.uspsoidg.gov/foia\\_files/RARC-WP-12-001.pdf](http://www.uspsoidg.gov/foia_files/RARC-WP-12-001.pdf).

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## Peer-to-Peer Commerce and the Role of the Postal Service

### Introduction

Innovations in payment processing, communications systems and devices, and logistics networks have resulted in increased buyer and seller access to online retail channels and a rise in new entrepreneurial ventures. Low barriers to facilitating transactions have enabled trade not only between consumers and corporations, but also between individuals and their peers. The term peer-to-peer (P2P) commerce refers to a model of a marketplace where individual consumers — peers — trade goods, services, and rentals directly.<sup>4</sup> Peer-to-peer commerce also allows both (1) corporations to create P2P-offering platforms and (2) consumers to offer goods and services directly to each other.

*Peer-to-peer markets bring informal, inter-citizen trade online, collectively creating large scale operations.*

The blurring of boundaries between P2P markets and traditional businesses — including businesses that have a strong or exclusive Internet presence — is an important trend that allows for additional growth in digital commerce offerings, including but not limited to P2P. The growth will be especially transformative if key challenges in identity authentication are solved for both people and entities. High standards of identity authentication allow buyers and sellers the option of being assured that a real person exists who can be located for resolution of problems that might occur, even if that person chooses to remain anonymous within a transaction.

Peer-to-peer markets bring informal, inter-citizen trade online, collectively creating large-scale operations. Reliable data on market size of this e-commerce subsegment are not collected by the U.S. Census Bureau or research organizations, primarily because the P2P segment is still emerging and in part due to the difficulty of measuring P2P transactions.<sup>5</sup> (State and local taxes, one potential source of information, may not always be collected.)

Economic analysis shows that the retail e-commerce market, also known as e-retail, is growing fast; observation and anecdotal evidence suggest that the P2P subsegment of e-retail is also gaining traction in the retail marketplace. According to industry analysts at Forrester Research, e-retail represents a strong growth area. U.S. consumers spent

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<sup>4</sup> P2P refers to peer-to-peer commerce, which should not be confused with peer-to-peer network protocols such as BitTorrent, commonly used in file-sharing networks.

<sup>5</sup> See Footnote 1.

more than \$200 billion in 2011 on online shopping, and that number is expected to grow by greater than 60 percent through 2016.<sup>6</sup>

While the precise scope of the P2P market is unclear, the potential of the broader e-retail segment is apparent. Accurately gauging the size and scope of the online P2P marketplace is a difficult task. Even if it were possible to separate all e-commerce transactions into those conducted between businesses and consumers and those between only groups of consumers or peers, the exact number and value of transactions would be difficult to ascertain. Each business operates differently and reports little public data on market size and characteristics. Individual transactions may be informal and not reported.

Craigslist and eBay are among the top 10 most-visited websites in the United States, both of which provide a form of peer-to-peer commerce.<sup>7</sup> The first and most established entry in this arena, eBay Inc., is the largest by far; it offers products sold by consumers as well as traditional businesses.<sup>8</sup> Many P2P marketplace operators do not track the value of commerce on their websites, but instead provide the total number of users or listings as a potential estimate of P2P activity.<sup>9</sup>

There is a trend in increased venture capital investment for P2P startups. According to VentureTrends, a national venture capital database based in Menlo Park, California, venture capital organizations have been funding P2P market startups over the past 5 years.<sup>10</sup> In 2011 there was a surge in the number of startups vying to facilitate markets for individuals to trade goods and services or rent their underutilized property.<sup>11</sup> This is an important market indicator that the P2P market is growing and potentially very profitable.

*In 2011, there was a surge in the number of startups vying to facilitate markets for individuals to trade.*

As the marketplace continues to evolve, new companies are connecting consumers and enabling them to sell new types of products and services to one another, including rental cars, college text books, apartment space, used clothing, chores, and errands.<sup>12</sup> Peer-to-peer commerce allows consumers a choice of goods and services of virtually all types.<sup>13</sup> The growth of this segment will

<sup>6</sup> Sucharita Mulpuru, *US Online Retail Forecast, 2011 to 2016*, Forrester Research, February 27, 2012.

<sup>7</sup> Alexa, "Top Sites in the United States," <http://www.alexa.com/topsites/countries/US>.

<sup>8</sup> \$60.3 billion worth of goods (excluding automobiles) were sold globally on eBay in 2011, approximately one-third within the United States. See "eBay Inc. Reports Strong Fourth Quarter Full Year 2011 Results," *Business Wire*, January 18, 2012, <http://www.businesswire.com/news/home/20120118006605/en/eBay-Reports-Strong-Fourth-Quarter-Full-Year>.

<sup>9</sup> Online classified listing leader Craigslist reports 60 million users active on a monthly basis in the United States in 2012. In 2010, Craigslist reported 573 million listings for various products and services. See Austin Carr, "The Craigslist Crime Report: 'Cesspool of Crime,' Bold Use of Marketing," *Fast Company*, February 24, 2011, <http://www.fastcompany.com/1731352/craigslist-crime-report-cesspool-crime-bold-use-marketing-updated>.

<sup>10</sup> "VCs show healthy appetite for peer-to-peer companies," *VentureBeat*, January 25, 2012, <http://venturebeat.com/2012/01/25/vcs-show-healthy-appetite-for-Peer-to-Peer-companies-analysis/>.

<sup>11</sup> Ibid.

<sup>12</sup> "The New Market Places – Peer to Peer Collaborative Consumption," *Entrepreneurship Review*, March 10, 2011, <http://miter.mit.edu/articlenew-market-places-peer-peer-collaborative-consumption/>.

<sup>13</sup> "Your friendly neighborhood app: The internet is going local," *The Economist*, October 27, 2012, p. 6.

make it an attractive target for traditional and new forms of fraud. Because peer-to-peer transactions inherently occur between two individuals whose real identities may not be revealed, the current P2P model is often based on an intangible honor system that can be violated by unscrupulous people. One example of this is misrepresentation of rental property; there are many others (see the "Shortcomings in Service Transactions" section on page 9).

## Peer-to-Peer Digital Commerce Description

While "peer-to-peer commerce" would suggest a market in which only individuals transact, the realities of the web are different. Most P2P websites typically involve connecting an individual consumer with a seller, which can be another individual or business, through a digital interface. These transactions may be facilitated by a third party, creating a place for buyers and sellers to find one another. The facilitator may help complete the transaction by offering payment processing and other services. Most often these two aspects of a facilitator's offerings are accessible via a single website or mobile application: (1) presenting the offer to potential customers, and (2) offering purchase options to complete the transaction.

Applications of the P2P model are still evolving in online commerce. Today, a majority of P2P transactions share some key characteristics:

- Informal – Transactions are conducted between two parties, with little physical infrastructure. Items are often offered "as-is," with no warranty or customer support offered. While some businesses sell merchandise through sites such as Craigslist and eBay, the commerce is not typically part of an ongoing commercial activity for the buyer or seller.
- Infrequent and intermittent – A consumer may sell some used sporting goods on eBay to clear space in his or her garage, or sell a used car via Craigslist. While some users participate in these markets as a hobby, transactions are infrequent for many participants. Businesses may use P2P as a channel to sell excess inventory without impacting other store items.
- Facilitated – Participants need a way to find one another. Facilitators, including Amazon.com Marketplace, Craigslist, and eBay, create a centralized listing of sales and auctions, searchable by relevant criteria. Many facilitators span a wide range of offerings, including services and rentals (see Appendix A), and offer payment processing. These services help both individual sellers as well as small home businesses.

Peer-to-peer commerce presents a unique appeal to consumers. By purchasing goods directly from other consumers through this informal network, buyers often find lower-cost options. Some buyers see dealing in both local and digital markets as a way to reduce waste and the environmental impact of consumption. Many sellers think of P2P



markets as an environmentally friendly way to dispose of unused or unwanted property and receive money at the same time.

Peer-to-peer markets can be a form of collaborative consumption.<sup>14</sup> They provide economic incentives to maximize overall efficiencies by facilitating sustainability efforts, optimizing resources, and allowing for greater consumer choice.<sup>15</sup> In addition, consumer options are geographically dispersed, allowing for customer arbitrage opportunities (i.e., buying at one price and reselling at higher prices). This creates a “virtual bazaar.”

*Peer-to-peer markets provide economic incentives to maximize overall efficiencies.*

Peer-to-peer commerce knows no geographic boundaries, as long as there are logistics services in place. However, opportunities in the cross-border P2P market do not come without challenges for buyers and sellers. From language barriers to hidden fees (in the form of customs charges, duties, and delivery fees) to difficulty in tracking orders, the international market remains a potentially lucrative but challenging arena in which to operate. Other obstacles include currency conversion, returning or exchanging items, validating addresses, and difficulties in credit card acceptance.<sup>16</sup>

Some P2P facilitators are experimenting with different promotional vehicles traditionally used by national and local businesses, offering coupons through the mail or other channels. Local “classified ad” website Craigslist maintains a directory of listings posted by users intended for a local customer group. These include difficult-to-ship items for sale such as furniture, appliances, automobiles, and some sporting goods. Many P2P listings on Craigslist and other sites would formerly have appeared in newspaper classifieds.

With low industry barriers to entry and a large potential customer base, the P2P e-commerce market presents an attractive opportunity today to startup facilitators. Startups can “pivot” (change their offerings very easily) if prototypes or launches do not achieve the necessary scale to become profitable. The new commerce initiatives and protocols typified by today's burgeoning P2P markets are here to stay, although P2P's speed of growth will be helped by a more reliable trust framework.<sup>17</sup>

## **Facilitators**

Facilitators are the entities that operate the platform on which a P2P market is based. In most cases, the platform takes the shape of a website or mobile application where

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<sup>14</sup> Rachel Botsman and Roo Rogers, *What's Mine Is Yours: The Rise of Collaborative Consumption* (New York: HarperBusiness Books, 2010).

<sup>15</sup> “The New Market Places – Peer to Peer Collaborative Consumption.” <http://miller.mit.edu/articlenew-market-places-peer-peer-collaborative-consumption/>.

<sup>16</sup> Many of these cross-border issues were discussed in detail at an OIG workshop on “Connecting Buyers and Sellers” held on September 26, 2012.

<sup>17</sup> “Although the examples of Collaborative Consumption range enormously in scale, maturity, and purpose, they share similar underlying principles essential to making them work...critical mass, idling capacity, belief in the commons, and trust between strangers.” Botsman and Rogers, p. 11.

peers are able to find buyers and sellers. Examples of large facilitators in the P2P market for goods include Amazon.com Marketplace, Craigslist, and eBay. Common attributes of most facilitators include:

- Websites or applications (apps) facilitating P2P commerce list items, rentals, or services in a searchable or browseable interface that helps users narrow their focus by category or location.
- A profile of market participants that includes reviews, comments, and other feedback collected from previous transactions. Users can view this feedback, sometimes referred to as “reputation capital,”<sup>18</sup> when evaluating the trustworthiness of sellers.
- Offers that may be listed on Internet-wide search engines purporting to give the best “deals” for travel, tours, and accommodation.
- Payment processing and other financial options to assist and encourage purchase.

As noted above, one of the most prominent websites facilitating P2P e-commerce — as well as offerings from commercial businesses — is eBay.

Often, consumers search eBay looking for a lower price on used goods instead of shopping with a local or online retailer. EBay facilitates P2P commerce in that it connects two consumers (peers), showcases the product on offer, and helps to complete a transaction. EBay does not stock its own merchandise; users offer all of the items for sale on the website. Typically in the P2P economy, no inventory is held or owned by the facilitator.

*Typically in the P2P economy, no inventory is held or owned by the facilitator.*

Many facilitators strive to offer convenience in order to gain a competitive advantage. Processing payments is a key hurdle in online transactions, and cash is not an option for remote transactions. To help clear that hurdle, most facilitators have created both a marketplace for P2P transactions and also provide payment processing services.

*Facilitators in P2P e-commerce usually charge a commission for their services.*

Facilitators in P2P e-commerce (and some other e-commerce segments) usually charge a commission for their services. This approach is viewed by many economists as efficient, in part because these startups do not require any capital investment to

acquire assets.<sup>19</sup> See Table 1 for an overview of sample commission structures and how select sites deal with payment processing.

<sup>18</sup> Or feedback can be a portion of total reputation capital, which can have several components.

<sup>19</sup> “The New Market Places – Peer to Peer Collaborative Consumption.”  
<http://miter.mit.edu/articlenew-market-places-peer-peer-collaborative-consumption/>.

**Table 1: Peer-to-Peer Facilitators and Revenue/Payment Models**

Company	Founded	Revenue Structure	Payment Processing
<b>Airbnb</b>	2007	Hosts pay 3%, guests pay 6 - 12% of booking	Yes
<b>Amazon Marketplace</b>	2000	\$0.99/sale + referral fee of 6 - 25% + closing fee around \$1.15 on first 40 listings (varies by shipping method, size, and weight)	Yes
<b>eBay</b>	1995	9% of final value (up to \$250) up to first 50 listings for auctions	Optional; integrated PayPal
<b>Etsy</b>	2005	3.5% of every sale + \$.20 per listing	Optional
<b>Getaround</b>	2009	35% - 40% commission	Yes
<b>HomeAway</b>	2005	Property owner pays \$349 annual subscription	Yes
<b>TaskRabbit</b>	2008	Of a \$30 task price, service fee is 5%	Yes

Source: U.S. Postal Service Office of Inspector General based on September 2012 data

### ***Reputation and Trust***

As the market becomes increasingly crowded with new entrants and traditional e-businesses grow their P2P platforms, differentiation among reliable and trusted providers will become more and more important. Ways of gauging reputation — reviews, ratings, and third-party trustmarks<sup>20</sup> — are likely to increase influence and value,<sup>21</sup> especially in the P2P market segment. Further, reputation cues must be easy-to-use and understand.

*As the market becomes increasingly crowded, differentiation among reliable and trusted providers will become more and more important.*

The absence of identity verification limits the opportunity for efficient geographic arbitrage within P2P markets.<sup>22</sup>

Sellers and buyers are either paying more to minimize risk or accepting inherent risk when solid identity authentication and trust are lacking. As solutions emerge under the

<sup>20</sup> A badge, image, or logo found on an electronic website that indicates the website is a member of a professional organization or that the website has passed security tests. The trustmark shows approval branding by a well-known third company. Webopedia, “e-commerce trustmark,” [http://www.webopedia.com/TERM/E/e\\_commerce\\_trustmark.html](http://www.webopedia.com/TERM/E/e_commerce_trustmark.html).

<sup>21</sup> Anindya Ghose, Panagiotis G. Ipeirotis, and Arun Sundararajan, “Reputation Premiums in Electronic Peer-to-Peer Markets: Analyzing Textual Feedback and Network Structure,” presented at SIGCOMM, August 22-26, 2005, Philadelphia (ACM 1-59593-026-4), <http://pages.stern.nyu.edu/~aghose/p2prep.pdf>.

<sup>22</sup> Geographic arbitrage refers to taking advantage of price differences from one location to another for a given product.

National Strategy for Trusted Identities in Cyberspace (NSTIC) or other initiatives, some of the uncertainties and risks in this area may be mitigated.

Offering buyer and seller protection and a dispute resolution process are other important steps that facilitators take to offset the risk of dealing in a P2P market. While buyers in a retail environment are often covered by manufacturer warranties and credit card protections, purchasers in P2P markets must look to the facilitator, rather than the seller, to guarantee satisfaction (see Table 2).

**Table 2: Buyer and Seller Protection Summary**

Company	Payment Processing	Buyer Protection	Seller Protection	Reputation Tracking
<b>Airbnb</b>	Yes	None	\$1 million Host Insurance, optional phone screening of guests	Guest & Host Reviews, Optional Social Network Integration
<b>Amazon Marketplace</b>	Yes	Yes	None	Seller Reviews
<b>Craigslist</b>	None	None	None	Anonymous
<b>eBay</b>	Optional, integrated PayPal	Yes	eBay Resolution Center	Buyer & Seller Reviews
<b>Etsy</b>	Optional	Yes	Protected from unauthorized payments and fraud	Seller Reviews
<b>Getaround</b>	Yes	Driver Insurance	Vehicle Insurance, Drivers Screened via Facebook, DMV, & Credit Report	Vehicle & Driver Reviews
<b>TaskRabbit</b>	Yes	Service Provider Background Check & Screening	None	Service Provider Reviews

Source: U.S. Postal Service Office of the Inspector General based on September 2012 data

## Shortcomings and Challenges in Peer-to-Peer Commerce

The nature of many P2P transactions (infrequent, intermittent, and informal) may mean that participants are more vulnerable and exposed than if they were to purchase goods and services from a traditional e-business or a physical store. Significant shortcomings, especially in identity verification and authentication, contribute to various types of fraud; common scams include escrow fraud, payment fraud, stolen or counterfeit items, and identity fraud. As P2P markets provide growing economic promise, market participants struggle with the

*Market participants struggle with the threat and impact of online fraud.*

threat and impact of online fraud. Many established e-businesses and large P2P facilitators have invested significant funds to minimize attempts at fraud, although the problem has not been eliminated.<sup>23</sup>

While there has not been formal research into fraud specifically in P2P e-commerce, it has been studied as a part of overall e-commerce. In its “2012 Online Fraud Report,” CyberSource’s survey of online merchants reports an annual loss of 1 percent of total online revenue to fraud.<sup>24</sup> The study noted that the challenge for merchants is handling greater volumes of orders while maintaining efficiency and minimizing fraud.<sup>25</sup> When the 1-percent estimate is applied to the U.S. Census Department’s retail e-commerce estimate of \$192 billion in revenues in 2011,<sup>26</sup> this places the fraud loss from all types at approximately \$2 billion.

***Lack of confidence and trust can limit potential new businesses and applications.***

Some buyers and sellers choose not to engage in P2P commerce with an unknown or emerging facilitator, because they do not consider the trust framework to be sufficiently reliable. This lack of confidence and trust can limit potential new businesses and applications or simply encourage both buyers and sellers to use established facilitators. P2P markets need assistance in minimizing this barrier to growth to help fully develop their economic and social potential.

### ***Escrow and Payment Fraud***

Escrow is a service provided by a third party that accepts and holds a payment pending fulfillment of some condition or agreement. In an escrow scam, a party to a P2P transaction convinces the other party to complete a transaction using a fake escrow service. A counterfeit escrow service may look very much like a legitimate operation, indicating that funds have been received and that a seller should ship the item when in fact the payment will never appear. Alternatively, the fake escrow service may be used to illegally capture the buyer’s payment and other personal details, while the item listed for sale does not exist.

While legitimate escrow services exist online, the costs are often prohibitive for all but high-value items such as automobiles or jewelry. This means that buyers and sellers in P2P markets are often required to conduct business directly, exposing personal information (name, email, and shipping address) in the course of completing an online transaction, or meeting in person and handling cash in the case of a local transaction. Both courses of action present a threat to the privacy of participants in P2P markets and, potentially, to their physical safety.

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<sup>23</sup> CyberSource, “2012 Online Fraud Report: Online Payment Fraud Trends, Merchant Practices and Benchmarks,” <http://forms.cybersource.com/forms/NAFRDQ12012whitepaperFraudReport2012CYBSwww2012> (accessed October 26, 2012).

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> “Quarterly Retail E-Commerce Sales,” U.S. Department of Commerce, U.S. Census Bureau, 2012, <http://www.census.gov/retail/mrts/www/data/excel/tsnotadjustedsales.xls>

Payment fraud can take many forms: in addition to counterfeit currency and money orders, payment fraud includes falsified emails confirming digital payments or a common ploy called an overpayment scam. In an overpayment scam, the seller is given a phony monetary instrument such as a money order, for an amount greater than the item's price. The buyer informs the seller that the situation is an honest mistake and, so as not to delay the transaction, requests the seller to refund the extra balance. Often the seller refunds the balance in good faith, before it is discovered that the original payment instrument was counterfeit.

### ***Counterfeit and Stolen Goods***

Websites such as Craigslist that provide an anonymous market for goods are a convenient venue for thieves to sell stolen items. While local police sometimes recover stolen items by searching for them on local P2P websites, buyers who fall victim are often left with no recourse due to the anonymity of the transaction. Counterfeit items are another major obstacle to trade, and an area in which the federal government has been deeply involved. In these situations, buyers and sellers of goods are presented with challenges in determining who can be trusted when conducting commerce online.

This risk is greater in remote transactions in which the buyer is unable to examine or test the item prior to purchase. The absence of solid identity verification in many service transactions limits the opportunity for efficient geographic competition within P2P markets. Many buyers prefer to work with someone locally who is known to them rather than risk a transaction with a party that is far away. Ironically, however, the largest facilitator of local transactions, Craigslist, offers no mechanism for integrated payment, and no service protections.<sup>27</sup>

### ***Shortcomings in Service Transactions***

Service facilitators do not always face the same risks associated in dealing with goods. But they often face unique and serious challenges regarding the safety of their customers, in part because of shortcomings with identity verification and authentication. Although many incidents may not be widely publicized, recent high-profile news articles involving P2P commerce and safety issues include property insurance fraud, fraudulent vacation rentals at nonexistent addresses, and even murder.<sup>28</sup>

***Service facilitators often face unique and serious challenges regarding the safety of their customers.***

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<sup>27</sup> Craigslist specifically does not offer guarantees, but it does offer a disclaimer warning of fraud included in each message sent through the site. For more information on avoiding or reporting fraud on Craigslist, see Craigslist, "about > scams," <http://www.craigslist.org/about/scams>.

<sup>28</sup> In 2011 an Airbnb users' home in San Francisco was ransacked by renters found through the website. In response, Airbnb created a now \$1,000,000 guarantee for hosts. In another incident, a woman attempting to rent a property in New York via Craigslist arrived at the location to find the property did not exist. In addition to having no place to stay, the woman lost her \$950 deposit. In a recent NBC/Dateline undercover segment titled "The Wild Wild Web," producers used Craigslist and other P2P classified sites for counterfeit ticket sales, prescription drugs, and counterfeit (continued on next page)

Many of today's startups working in P2P markets are integrating identity information from social networks such as Facebook as a part of their method of tying users to identities. While Facebook policy prohibits falsifying information, there is little infrastructure in place preventing people from adopting a number of aliases; this is true on other sites as well. In e-commerce markets that rely only on email authentication, users with poor feedback profiles may easily abandon one alias for another.

*In markets that rely only on email authentication, users with poor feedback profiles may easily abandon one alias for another.*

## Potential Postal Service Products and Services

As P2P markets expand, new opportunities are available to the Postal Service to offer existing services more effectively (see page 14 for a list of these services). In addition, service integration can position the Postal Service for expanded revenue in digital markets while empowering P2P innovators.<sup>29</sup>

### *Digital Identity*

With its reputation as the most trusted federal government agency and its long history of protecting the privacy of First-Class Mail<sup>®</sup>, the Postal Service could lead the way in bringing privacy and real-world validity to digital identity.<sup>30</sup> Table 3 illustrates the many ways in which strengthened digital identity and authentication services as well as Digital COD and Digital Escrow could help overcome existing shortcomings in the current market and offer other opportunities presented herein. Initial customers would include current credit and debit card holders, but the potential customer base could be much larger.

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electronics. Even more serious and more sensational, a bogus Craigslist job listing in Ohio lured four applicants to farmland in Ohio, where three were murdered and one shot. The perpetrator was recently convicted. Sources: "Renters Get Swindled and Scammed," *The New York Times*, June 26, 2009, p. RE1, <http://www.nytimes.com/2009/06/28/realestate/28cov.html?pagewanted=all>; "Chris Hansen enters the 'Wild, Wild Web,'" Inside Dateline, October 26, 2012, [http://insidedateline.nbcnews.com/\\_news/2012/10/22/14619065-oct-26-chris-hansen-enters-the-wild-wild-web?lite](http://insidedateline.nbcnews.com/_news/2012/10/22/14619065-oct-26-chris-hansen-enters-the-wild-wild-web?lite); "Craigslist Used in Deadly Ploy to Lure Victims in Ohio," *The New York Times*, December 2, 2011, <http://www.nytimes.com/2011/12/02/us/three-lured-to-death-in-ohio-by-craigslist-job-ad.html?pagewanted=all>.

<sup>29</sup> A recent white paper suggests that there are arguments that a number of new products could be permitted under current regulations. Some legal issues may remain open to interpretation. U.S. Postal Service Office of Inspector General, *Bridging the Digital Divide: Overcoming Regulatory and Organizational Challenges*, Report No. RARC-WP-12-004, November 22, 2011, [http://www.uspsoidg.gov/foia\\_files/RARC-WP-12-004.pdf](http://www.uspsoidg.gov/foia_files/RARC-WP-12-004.pdf).

<sup>30</sup> The Ponemon Institute has ranked the Postal Service among the most trusted federal agencies. Ponemon Institute, "U.S. Postal Service Tops Ponemon Institute List of Most Trusted Federal Agencies," June 30, 2010, <http://www.ponemon.org/news-2/32>. For a discussion of the Postal Service and digital identity, see U.S. Postal Service Office of the Inspector General, *Digital Identity: Opportunities for the Postal Service*, [http://www.uspsoidg.gov/foia\\_files/RARC-WP-12-011.pdf](http://www.uspsoidg.gov/foia_files/RARC-WP-12-011.pdf).

**Table 3: Potential Postal Service Solutions in Peer-to-Peer e-Commerce**

Shortcoming/ Challenge	Current Market Response	Continuing Gap	Potential Postal Service Solution
Identity Fraud/ Loss of Privacy	<p><u>Electronic</u></p> <ul style="list-style-type: none"> <li>• Username &amp; password</li> <li>• Open ID</li> </ul> <p><u>Physical</u></p> <ul style="list-style-type: none"> <li>• ID Card</li> <li>• Biometric Identification</li> </ul>	<p><u>Electronic</u></p> <ul style="list-style-type: none"> <li>• Open ID services have no uniform standards</li> <li>• No in-person verification</li> </ul> <p><u>Physical</u></p> <ul style="list-style-type: none"> <li>• Physical ID verification is usually not possible in online transactions</li> </ul>	<ul style="list-style-type: none"> <li>• Postal Service Digital ID and in-person proofing</li> <li>• Opt-In verification of name and address in USPS mailing files</li> <li>• Anonymous handling of transactions using an alias tied to an authenticated identity* with restricted viewing</li> </ul>
Escrow Fraud	Legitimate private escrow and payment services (e.g., PayPal)	High cost and transaction fees (see Appendix B)	Digital COD and Digital Escrow Service
Counterfeit and Stolen Goods	<ul style="list-style-type: none"> <li>• Buyer Beware warnings (Craigslist)</li> <li>• Refunds (eBay)</li> <li>• Satisfaction Guarantee</li> </ul>	Anonymity of online transactions continues to attract sellers of counterfeit and stolen merchandise.	Postal Service Digital ID
Payment Fraud	Sellers are often advised to avoid transactions involving personal checks and money orders.	Cash is not always convenient for long distance transactions; not every seller can accept credit and debit cards.	Digital COD and Digital Escrow Service
Product or Service Fraud <sup>31</sup>	Background Checks (TaskRabbit), Multifactor identity verification	A variety of solutions with limited evidence of effectiveness	Postal Service Digital ID and Digital Escrow Service

\* Such an offering may have to be compliant with current bank secrecy and Office of Foreign Assets Control laws and regulations.

Source: U.S. Postal Service Office of Inspector General, 2012

Many households do not have access to financial services such as checking and savings accounts or credit and debit cards. According to a recently released report from the Federal Deposit Insurance Corporation (FDIC), based on a 2011 survey, more than 8 percent of U.S. households are unbanked, and more than 20 percent are underbanked.<sup>32</sup> This and other data from the FDIC demonstrate a significant potential gap in participation in the P2P and general e-commerce marketplace. Although it is possible to send payments by money order in the mail, most digital commerce is conducted through online payments, primarily credit and debit cards. A combination of a Digital ID offering from the Postal Service and Digital COD with digital currency could

<sup>31</sup> Product or service fraud involves offering products or services that do not exist or are not as represented.

<sup>32</sup> Federal Deposit Insurance Corporation, *2011 Federal Deposit Insurance Corporation Survey of Banked and Unbanked Households*, September 2012, <http://www.fdic.gov/householdsurvey/>.



potentially open up web commerce to a larger group while avoiding various types of fraud.

The same concept for identity proofing is applicable to offset risks in P2P rental markets, where property owners and renters face the same vulnerability. Authenticating the identities of participants in a P2P service transaction could serve to deter criminals and offset the risks to market participants of dealing closely with another person who is unfamiliar or completely unknown.<sup>33</sup>

*Authenticating the identities of participants in a P2P service transaction could serve to deter criminals and offset the risks to market participants...*

There would be overall economic benefits to identity verification from the Postal Service and/or a postal trustmark. A postal trustmark would show that the digital identity or other postal tool being utilized offers a sense of protection. A trustmark would leverage many Postal Service strengths, including security, privacy, and trust.

*A trustmark would leverage many Postal Service strengths, including security, privacy, and trust.*

Identity verification, including a postal trustmark, could directly enhance a seller's online reputation capital, in conjunction with user reviews, allowing buyers to differentiate among the plethora of offers available and sellers to offer higher prices. The importance of reputation capital cannot be minimized: it acts as a secondary currency.<sup>34</sup>

### **Digital COD and Digital Escrow**

With the repositioning of COD as a "Digital COD" service for P2P, where the buyer does not make a payment until she receives the package, some of the uncertainties inherent in the P2P market would be relieved.<sup>35</sup> In a potential Digital COD offering, the Postal Service would act as a facilitator to ship and deliver the product ordered and accept payment from the buyer upon the buyer's receipt of the product. The Postal Service would transmit payment to the seller electronically, via credit card or prepaid digital currency card, less a commission.<sup>36</sup> The seller would pay any credit card merchant fees.

In a potential Digital Escrow offering, at the time of purchase, the buyer would place payment in a protected escrow account held by the Postal Service. Upon receipt and

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<sup>33</sup> Of course, no system will completely deter crime, but it can be minimized to the greatest extent possible.

<sup>34</sup> Botsman and Rogers, p. 194. "By the end of this decade, power and influence will shift largely to those people with the best reputations and trust networks, from people with money and nominal power." Craig Newmark, "Trust and Reputation Systems: Redistributing Power and Influence," Craigconnects, April 6, 2010, quoted in Botsman and Rogers, p. 196.

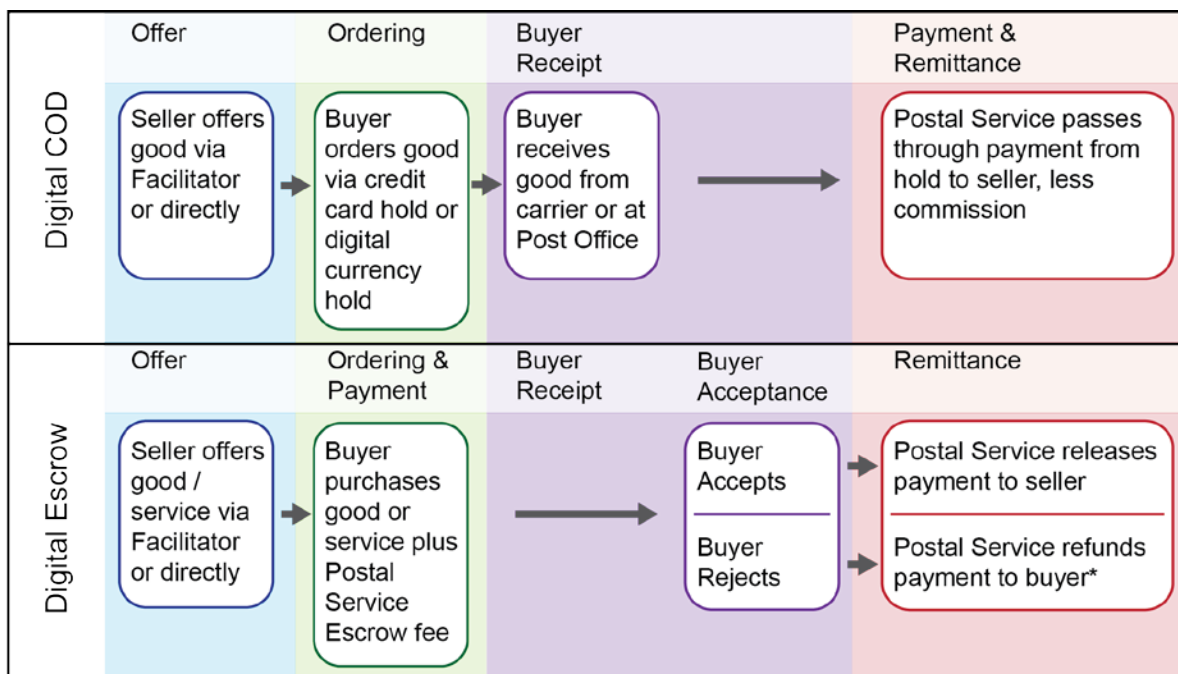
<sup>35</sup> The current COD product is targeted toward the unbanked and underbanked, and Postal Service efforts to digitize COD have not materialized to date. Interview conducted with U.S. Postal Service, October 26, 2012.

<sup>36</sup> See U.S. Postal Service Office of Inspector General, *Digital Currency: Opportunities for the Postal Service*, [http://www.uspsioig.gov/foia\\_files/RARC-WP-12-001.pdf](http://www.uspsioig.gov/foia_files/RARC-WP-12-001.pdf).

acceptance of the item (or service), the buyer would authorize release of payment by the Postal Service to the seller. If the item is received broken or the seller does not accept it for other reasons, the Postal Service would inform the seller of order status and refund payment to the buyer.

The Digital COD and Digital Escrow services address similar, but distinct, market needs. Some customers do not want to pay for an item until it is in their hands. Others may be concerned that in the event the item or service they thought they had purchased is not actually as represented, they may not be able to obtain a refund easily or quickly. This is of special concern on high-end items, where a significant amount of money may be tied up in the unsuccessful purchase. (See Figure 1 for a comparison of flows.)

**Figure 1: Postal Service Digital COD and Digital Escrow Flows**



\*For goods, refund is made after merchandise is received at seller. For services, refund is subject to clear dispute resolution process.

Source: U.S. Postal Service Office of Inspector General, 2012

It is possible that the services could be combined into one easy-to-understand solution with clearly defined options (or that, ultimately, one or the other service will be successful and the other may be phased out). Payment is made at different times, and refunds to the buyer under each scheme would be different. (For a comparison of the two services, see Table 4.)

**Table 4: Key Elements of Digital COD and Digital Escrow Services**

	Digital COD	Digital Escrow
<b>Condition of payment</b>	Upon receipt of good	Upon approval of recipient (can examine condition of good)
<b>How is seller paid?</b>	Directly by recipient	Through payment released by Postal Service
<b>Is it integrated with delivery?</b>	Yes	Optional
<b>Role of Postal Service</b>	Deliverer and conduit for payment	Holder of payment

Source: U.S. Postal Service Office of Inspector General analysis, 2012

### ***Other Postal Services***

The Postal Service is well positioned to provide a wide range of existing complementary products and services to the P2P market. Sellers seeking easy-to-use shipping solutions can access a wide range of services through multiple access channels. There is also the possibility of promoting many current postal products in conjunction with P2P services, including:

- Delivery Confirmation – Provides basic delivery or attempted delivery information through the Postal Service’s Track & Confirm tool.
- Insurance – Protection for loss or damage of up to \$5,000 on the declared value of an item.
- Return Receipt and Return Receipt for Merchandise – Proof that an item was delivered with an email or postcard showing the recipient’s signature.
- Adult Signature Required – Ensures that an adult (21 years or over) signs for a shipment at the recipient’s address.
- Registered Mail – Provides the highest security for valuable items that can be insured for up to \$25,000.
- Restricted Delivery – Allows the customer to specify who can sign for and receive the item.
- Signature Confirmation – Offers basic delivery or attempted delivery information through the Postal Service’s Track & Confirm tool, but adds extra security by requiring a signature at delivery.
- Certificate of Mailing – An official record of evidence that the customer mailed an item on a specific date.

Additionally, a number of other services could also benefit from the enhanced P2P services:

- Flat-rate Priority Mail boxes and envelopes – These products offers two-day delivery under the motto “if it fits, it ships” with optional access to Track & Confirm.
- Returns Services – The Postal Service offers a range of returns services for businesses ranging from Priority Mail to ground to parcels. While developed for the larger customer in mind, ease of returns for smaller P2P merchants would drive additional traffic. One of these services, Merchandise Return Service, allows customers to return items using a preprinted, prepaid label or a label printed from the seller’s website. The ability to provide a seamless return and reorder service is critical to much retail e-commerce.

The Postal Service is in an excellent strategic position to present a full solution for P2P ordering, payment, delivery, returns, and reorder services, complete with ancillary products. Pricing strategies would reward customers who utilize the complete postal solution, while still permitting competitive pricing for discrete products. This incremental approach, which fits in with the Postal Service’s current digital strategy, also has the advantage of allowing adaptation to a quickly changing, dynamic marketplace.

Currently, the Postal Service provides e-commerce operators with an application programming interface (API) to check address validity, access delivery status, estimate delivery times, calculate postage, schedule carrier pick-up, and create shipping labels during an e-commerce checkout process.<sup>37</sup>

## **Positive Role for the Postal Service in the P2P Marketplace**

### ***Raising Confidence***

Postal Service involvement in this market would increase confidence among both buyers and sellers, and encourage people to participate in P2P transactions. The Postal Service possesses a number of valuable assets that can be used to enable transactions between sellers and consumers in an online P2P marketplace. In providing potential identity verification and payment services for P2P e-commerce, the Postal Service could leverage its current role in e-commerce along with its trusted name and reputation for protecting the privacy of its customers. Users could include both users with credit or debit cards and the unbanked or underbanked through digital currency solutions.<sup>38</sup> Additionally, the Postal Service possesses decades of experience with secure, short-

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<sup>37</sup> Any potential program needs to be very convenient, with few or no hurdles to getting a customer to use it. For this type of service, Gartner, an information technology research and advisory company, estimates that every hurdle in a process loses about 50 to 75 percent of those currently engaged in the process. Gartner analyst interviews, November 30, 2012.

<sup>38</sup> See U.S. Postal Service Office of Inspector General, *Digital Currency: Opportunities for the Postal Service*, [http://www.uspsioig.gov/foia\\_files/RARC-WP-12-001.pdf](http://www.uspsioig.gov/foia_files/RARC-WP-12-001.pdf).

term currency transfer and payment services including Dineroseguro<sup>®</sup>, postal money orders, and most recently, American Express gift cards. These services also have benefited substantially over the years from the Postal Service's trust and security assets.

The Postal Service has implemented web services that enable third-party integration into its e-commerce platform. As is commonly the case with new technologies,

*The Postal Service has implemented web services that enable third-party integration into its platform.*

entrepreneurs often find novel applications that the creators of the original system did not imagine. Using digital identity within digital P2P markets is one application out of many. Other applications include providing a secure login for online access to government services, finance, and health information. The Postal Service's role would be

complementary to already existing market offerings; it would play an essential role in a more secure P2P marketplace for both buyers and sellers (see Appendix C).

By playing a role in verifying the identity of P2P market participants,<sup>39</sup> the Postal Service would address several issues that currently may limit the market's full scale potential. These fall into several categories, including enforcement and accountability, accessibility, and privacy.

### ***Enforcement and Accountability***

When a P2P transaction incorporates the use of a postal product or service, the protections offered under the mail fraud statutes may be applicable to the P2P transaction. This would allow postal law enforcement to leverage its expertise in investigating potential fraud and other crimes related to P2P commerce via the Postal Service. Two law enforcement organizations provide these enforcement services. The Office of Inspector General (OIG) primarily investigates internal misconduct, while the Postal Inspection Service focuses on external crimes connected to the U.S. mail system. This law enforcement capability permits both organizations to investigate crimes committed in violation of several hundred federal laws ranging from using a false identity to contract and financial fraud. Offering identity verification and payment services through the Postal Service, potentially tethered to products already in existence such as COD, will provide users the additional benefit of knowing that an experienced law enforcement structure already exists to handle fraud or other legal claims.

Accountability is related to enforcement. In anonymous markets, participants' identities are withheld, leaving victims of fraud without information that can be used to resolve issues and hold parties accountable. The Postal Service can help fill this important role of maintaining the anonymity of buyers and sellers, but securely retaining the

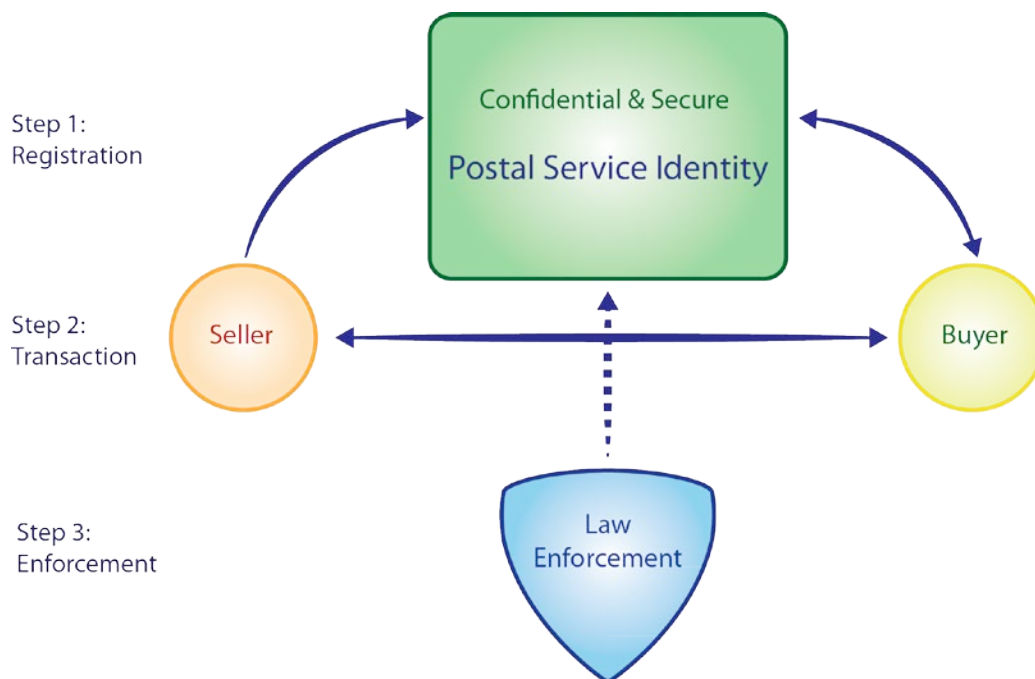
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<sup>39</sup> The Postal Service should engage to see how to best assist and add value to P2P trust not only through its own solutions but also NSTIC-supported solutions.

information in the short term, in the event that those involved in a P2P transaction must be identified and held accountable if there is a problem with the transaction.

For example, the seller in a local, anonymous P2P transaction is exposed to a risk of payment fraud. The buyer in the same transaction risks receiving stolen or counterfeit goods. To offset these risks, the parties could agree to register their transaction with a trusted third party (like the Postal Service) who would hold the identities confidentially, allowing anonymity when desired by either party. To protect individual privacy, neither user could access the identity of the other. In the event of criminal activity, law enforcement would be able to access the identities of the parties involved in the transaction through the trusted third party. This approach provides avenues for recourse in the event of fraud while still protecting the privacy of the individuals participating in the transaction. Attributes of the buyer and seller provided to the Postal Service would only be released to law enforcement in the event of fraud (see Figure 2).

**Figure 2: Peer-to-Peer Postal Solutions and Law Enforcement**



Source: U.S. Postal Service Office of Inspector General, 2012

### **Accessibility**

Identity solutions that are more accessible to consumers may allow more participation in the digital economy. The Postal Service's extensive retail and delivery network places today's P2P market and digital identity within reach of every American household and business, including individuals who may not have bank accounts or credit cards. Building on an open and interoperable platform for digital identity, the Postal Service is well positioned to offer digital identity verification on a national scale. By leveraging that

reach, the Postal Service could expand its current identity verification service (utilized today for U.S. passport processing and some postal products and services) to issue digital identities linking a specific person to a postal address or to provide in-person authentication for a third-party identity provider.

### ***Privacy***

Relying on a network of social identity and credit information requires users to expose their identity details to organizations that are not accountable for how that information is utilized, including the use of context-sensitive advertising without consideration of the buyer's and seller's personal information. The Postal Service could provide a level of privacy that many of the facilitators in today's P2P marketplace do not offer.

### **Conclusion**

Peer-to-peer markets are an important and growing part of the digital economy, and the application of this model is predicted to continue to dramatically expand. While the need for digital identity services is widespread and not uniquely driven by the peer-to-peer market channel, peer-to-peer markets would benefit from digital identity verification services. Fear of fraud among users (both buyers and sellers) could decrease as many cases of fraud would be eliminated. From this application, the Postal Service can provide infrastructure for increasing the accountability of peer-to-peer markets and with it, provide a catalyst for further growth for all parties. Postal strategies should focus on complementary services and allow for users to keep both their anonymity and privacy in transactions, while at the same time ensuring the capability of tracking parties in cases of fraud.

Products and offerings in digital identity, in-person proofing, and other services for the peer-to-peer market would help the Postal Service strategically in responding to market needs for privacy and security. These offerings would position the Postal Service more favorably with younger consumers whose lives are focused on digital communications and commerce, either on websites or through mobile and smartphone applications. In addition, such services would further solidify the Postal Service's role as a hub within the community for facilitating commerce. This would be an extension of the role it has traditionally played in commerce over the years and allow growth of many of its current services, in addition to some extensions of current services.

As the lines between traditional retail, formal e-commerce, and peer-to-peer commerce increasingly meld, the number and value of overall transactions on websites, mobile devices, and future devices will grow exponentially. No business or offering connected with commerce can afford to ignore the changes introduced by digital commerce, including rapid expansion of peer-to-peer markets and the multifaceted opportunities they present.

## Appendices



## Appendix A      Players in the Peer-to-Peer Market

### *Description of Some Current Players*

#### *Amazon.com Marketplace*

In 2000 Amazon.com launched its Marketplace feature, which lets any Amazon user post used or new goods to be sold alongside items available new from Amazon. For example, when shoppers on Amazon search for a book to purchase, they can choose to purchase directly from Amazon or buy a used copy from another Amazon user, typically for a lower price. Amazon.com Marketplace provides payment processing and user feedback profiles similar to eBay's, and purchases made through Amazon.com are covered by Amazon's buyer protection service. Amazon.com is an important part of the P2P market, by virtue of its overall size, but the majority of its postings are from small businesses rather than individuals.

#### *Craigslist*

Craigslist.org was established in 1999, beginning as an email list for local events. Craigslist eventually settled on an online classified advertisement format. Serving classifieds via the Internet incurs a much lower marginal cost than print media, and the majority of listings on Craigslist are hosted on the service for free. Craigslist charges only for job ads in some metro areas, New York City apartment listings, and some categories of services. By creating large, local communities with very low participation costs and making filtering ads by categories, location, and cost very simple, Craigslist quickly grew to cover major metro areas in the United States and lead the local classifieds industry.

Craigslist serves as one of the most informal kinds of e-commerce: users are warned that Craigslist does not authenticate users' identities, endorse any product or escrow service, or provide any buyer protection. Craigslist is anonymous, meaning there is no consistent way of identifying classifieds users or viewing transaction feedback. Most transactions are completed locally and in cash.

#### *eBay*

The company eBay was founded in 1995 and grew to become the world's most prominent auction website. Connecting dispersed buyers and sellers of durable goods and media previously was not cost-effective on eBay's scale. By allowing anyone to sell a variety of items on an open market, eBay created a globally accessible marketplace of used and unique items. Popular items offered on eBay, according to a recent *Wall Street Journal* article, are "soccer balls, used T-shirts, tools, and other goods."<sup>40</sup> Higher-priced items bought and sold on eBay include electronics, media, antiques, and automobiles.

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<sup>40</sup> See "PayPal Helps Fuel Revival at eBay," *Wall Street Journal*, October 18, 2012.

Fraud and fragmented payment processing options were early problems in the eBay marketplace. eBay users who participated in auctions that used money orders, cash, and checks were vulnerable to several kinds of scams. Buyers who fell prey to common scams were unable to recover their money because of the finality of these payment methods. After acquiring payment processor PayPal in 2002, eBay was able to integrate its marketplace and payment processor, making it more feasible to protect buyers against fraudulent sellers in transactions for which PayPal is the method of payment.

To deter fraud, users may view a profile that details the feedback history of the buyers and sellers with whom they interact. eBay processes payments and provides buyer protection services through PayPal. Insurance and escrow are offered for high-ticket items such as automobiles and jewelry.

### *Etsy*

Etsy, founded in 2005, provides a marketplace for handmade goods and crafts and has gained increasing popularity in younger demographic groups. Sellers on Etsy can create a storefront, integrate items into a catalog that can be browsed or searched, and take advantage of payment processing services. Etsy offers a buyer protection service for items paid for through Etsy's payment processing. Sellers on Etsy pay a commission and listing fee for hosting their online storefront.

### ***Markets Moving beyond Goods***

As the P2P commerce trend grows, new companies are taking the P2P model beyond goods and into markets like rentals and services, including travel, hospitality, and personal service. Following are some examples of P2P startups that are growing and spawning imitators:

#### *Airbnb*

Airbnb applies the P2P model to the private hospitality and short-term rental industry. Properties for rent range from an air mattress in an apartment living room to entire single-family homes. Users match dates and locations to a listing of properties available during that time period and can browse photos, prices, and reviews. Airbnb charges a commission to both the host and guest and processes payments for transactions. Airbnb insures hosts against property damage up to \$1 million. Public profiles for both renters and property owners provide feedback from past transactions.

#### *Getaround*

Getaround has been described as an Airbnb for private car rentals. Vehicle owners may list their car for rent via the website, with rental rates set on an hourly, daily, or weekly basis. Drivers are insured by Getaround, which processes payments and takes a commission from car owners. Getaround takes an advanced approach to identity verification as a safety mechanism. The company integrates with both Facebook and local Department of Motor Vehicle systems to check driver records against a user's

social network identity, credit report information, and other resources. Getaround makes money by charging a 40-percent commission to car owners.<sup>41</sup>

### *TaskRabbit*

TaskRabbit is an auction-style marketplace for chores. Users can post a task they would pay to have taken care of, such as delivering flowers, baking cookies, mowing a lawn, or — the most popular service — putting together new furniture that needs assembly. Other users bid by posting the price they would accept to complete the requested task. Users performing tasks must pass a background check and video screening offered by TaskRabbit. Payments are processed through an iPhone app or the website, and TaskRabbit charges a commission to those paying for service.

### *Lending and Investment Platforms*

Kiva and Kickstarter are examples of P2P microfinancing sites. These platforms offer ways for individual entrepreneurs and others to find each other, and for individuals and groups of individuals to fund startups in return for a share of future profits. Microfinance sites and peer-to-peer lending are beyond the scope of this paper.

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<sup>41</sup> “7 Start-ups Changing Peer-to-Peer Commerce,” *INC.*, August 6, 2012, <http://www.inc.com/ss/7-start-ups-changing-peer-peer-commerce#5>.

## Appendix B Sample Current P2P Escrow Fees

Table 5 shows a sampling of fees for escrow services.<sup>42</sup>

**Table 5: Escrow Fees at P2P Sites**

Escrow/Online Payment Service	Percentage of Transaction	Additional Fees
<b>PayPal</b>	2.2% - 3.9%	\$0.30 per transaction + currency exchange fees (if necessary)
<b>Escrow.com</b>	3.25% - 6.3%	Disbursement fee (\$0 - \$60)
<b>OKPay</b>	1% - 10% (minimum \$5, maximum \$100)	None
<b>Safefunds.com</b>	Tiered fee structure from \$38 to \$400	Additional fees for wire transfer, electronic payments, and return postage
<b>MiniEscrow</b>	2.5% - 6.5% (\$10 minimum)	None
<b>2CheckOut (2CO)</b>	5.5% flat rate	\$0.45 per-transaction fee, \$10.99 one-time application fee

Source: Posted escrow fees assembled by U.S. Postal Service Office of Inspector General, December, 2012

<sup>42</sup> PayPal, "Fees," <https://www.paypal.com/webapps/mpp/paypal-fees>; Escrow.com, "Customer Service," <https://www.escrow.com/support/calculator.asp>; OKPay, "Escrow Service," <https://www.okpay.com/en/services/escrow.html>; SAFEFUNDS, "SAFEFUNDS Transaction Fee Schedule August 1, 2012," <http://www.safefunds.com/fees.html>; MiniEscrow.com, "Fees," <https://www.miniescrow.com/fees.php>; and 2CheckOut, "Simple Pricing Plan," <https://www.2checkout.com/pricing/>.

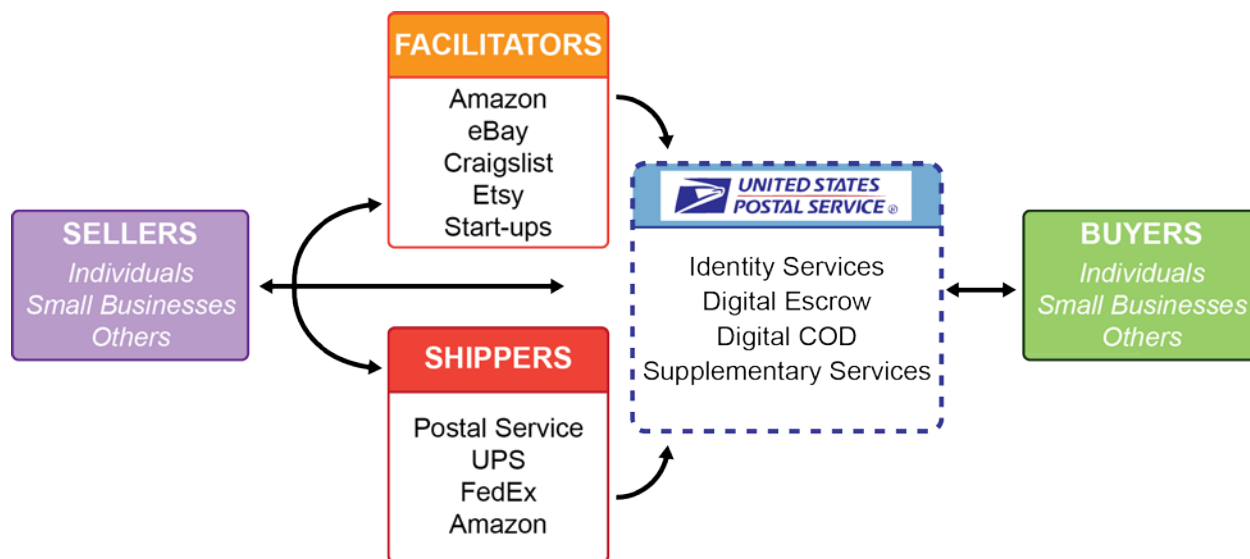
## Appendix C A More Secure Future for P2P Commerce

The current peer-to-peer market is comprised of buyers and sellers, along with facilitators, as described in the text. Most facilitators handle payment processing and may offer some form of buyer and seller protection, but even these current attempts leave significant gaps in the marketplace, including many types of fraud. These gaps, in turn, limit the trust that potential participants have in the market and therefore prevent the overall P2P market from growing faster than it would under more optimal conditions.

The Postal Service has a potential new role to play as an enabler, with identity services, Digital COD, Digital Escrow, insurance, and many current services of interest in P2P. This potential role would be complementary to the existing market structure, not competitive.

For shipment of goods, facilitators may offer one specific shipper or several options. Examples of shippers in today's market are the Postal Service, United Parcel Service (UPS), FedEx, and others. Notably, Amazon.com, a large facilitator, offers its own shipping in some markets.

Figure 3: The Role of the Postal Service in Secure P2P Commerce



Source: U.S. Postal Service Office of Inspector General, 2012