

TESTIMONY OF

John Muller

Vice President, Global Payments Policy

PayPal, Inc.

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“The Disruptor Series: Mobile Payments”

PRESENTED

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Chairman Burgess, Ranking Member Schakowsky, and Members of the Subcommittee: Thank you for the opportunity to testify this morning on the role that mobile payments play in disrupting today's financial services landscape.

My name is John Muller and I am the Vice President of Global Payments Policy for PayPal, Inc. PayPal is a leading payments company, with more than 173 million active users around the world. From starting with customers beaming payments on their Palm Pilot devices in 1999 to 345 million payments on mobile devices in the third quarter of this year, PayPal continues to transform how people shop and pay.

PayPal was founded with the simple goal of making sending a payment faster, easier, and more secure. The company's products and technologies have evolved to match the growing trend towards mobile payments from both a consumer and a merchant platform. I'd like to give the subcommittee some background on PayPal and our products, and explain why and how mobile technologies are disrupting traditional payment options.

Mobile technologies powered by the internet enable us to purchase and sell goods or services anywhere, all with the touch of a button. The adoption of mobile phones and other mobile devices is the fastest mass adoption of technology in history. Because of mobile technology, people all over the world can move their offline businesses to a global marketplace almost instantly. This represents a seismic shift in the world of commerce, and mobile is just the beginning of this wave. We are seeing a proliferation of connected devices. By 2020, there will be more than 50 billion "things" connected to the

Internet.¹ The more connected we are, the easier it is for people to make purchases and transactions.

PayPal's Position in Mobile Payments

PayPal offers consumers a “digital wallet” that connects into and leverages traditional payment networks, enabling PayPal’s users to send and receive both personal and commercial payments in a safe, secure, and efficient manner. Because PayPal is hardware-agnostic, it can operate in virtually any digital ecosystem.²

Most of our customers still open their account and transact using a traditional desktop or laptop computer, but our mobile app and mobile-optimized Website gives them the choice to access the full power of their online account in their mobile device. We also help merchants, especially small merchants, optimize their checkout pages for mobile access. So with the touch of a button on your smartphone, you can pay directly at participating retailers, check your account balance, and send money to individuals in more than 100 countries around the world.

Physical money is digitizing right in front of our eyes. 40% of the money passing through consumers’ wallets today is in the form of either checks or cash. That number is predicted to drop to 5% by 2017.³

¹ Evans, D. (April 2011). The Internet of Things, How the Next Evolution of the Internet is Changing Everything. Retrieved November 24, 2015, from: https://www.cisco.com/web/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf.

² Weill, P. and Woerner, S. (June 16 2015). Thriving in an Increasingly Digital Ecosystem. Retrieved November 23, 2015, from <http://sloanreview.mit.edu/article/thriving-in-an-increasingly-digital-ecosystem/>.

³ Schulman, D. (March 04 2015). Morgan Stanley Technology, Media & Telecom Conference. Retrieved November 23, 2015, from: <http://www.nasdaq.com/aspx/call-transcript.aspx?StoryId=2973946&Title=ebay-s-ebay-management-presents-at-morgan-stanley-technology-media-telecom-conference-transcript-#ixzz3sSjgm6HY>.

The convenience brought forth by mobile payment technology has caused it to be adopted by both merchants and consumers at huge scale. Out of the 4 billion transactions PayPal processed last year, 1 billion were made on a mobile device. This growth is continuing – in the most recent quarter of this year, we processed 345 million mobile payments, up 38% year over year. Mobile payments are becoming the technology of choice for people across the world.

Mobile as a Disruptor

In order to understand mobile technologies as disruptors, we must recognize that ecommerce is still in its earliest stages. Ecommerce accounts for only 10% of all commerce, but it is growing at a rate of 17% a year.⁴ We believe that the offline marketplace is a ripe opportunity for PayPal and other mobile payment providers to penetrate. As consumers and merchants shift to mobile, they are showing that they want to use mobile devices to access traditional financial mechanisms such as bank accounts and credit cards, and potentially to access new payment methods such as prepaid cards, digital wallet balances and digital currencies.

Protecting Consumers and Their Data

Today, the financial services sector is primed for the transition to mobile and frictionless payments. The digitization of money, the near ubiquity of Internet access, and the availability of mobile phones have created the ideal circumstances for companies to examine ways to reduce costs and burdens associated with transferring money through the system. More importantly, these developments have also provided people easier and

⁴ Schulman, D. (March 04 2015). Morgan Stanley Technology, Media & Telecom Conference. Retrieved November 23, 2015, from: <http://www.nasdaq.com/aspx/call-transcript.aspx?StoryId=2973946&Title=ebay-s-ebay-management-presents-at-morgan-stanley-technology-media-telecom-conference-transcript-#ixzz3sSjgm6HY>.

cheaper ways to manage their money. At the same time, these developments have increased the need for security to protect users' information from hackers and fraud. At PayPal, part of our core corporate mission is to work to make technology the vehicle for delivering a great consumer experience – complete with built-in robust protections.

PayPal was founded by a computer security expert, Max Levchin, partly as a way of demonstrating that payments could be done securely online in the early days of the Internet. For more than 15 years, we at PayPal have strived to be at the cutting edge of cyber security technology. According to [Javelin Research](#)⁵, PayPal is the most trusted partner by consumers for mobile payments—ahead of traditional credit card providers and other technology companies. PayPal is designed from the ground up to be one of the safest and most secure ways to send money online. For consumers, one of the fundamental benefits of paying with PayPal is that we process your payment without revealing your financial account information to the merchant. When you choose to pay with PayPal, you provide the merchant only your name and email address and (for physical goods transactions) your shipping address. We encrypt the rest of your information and then send the payment to the merchant. For our community of merchants, because they never receive the customer's credit card or bank account information, they are spared the burden of storing and managing this information securely. This early form of tokenization that we started 16 years ago continues to be the foundation of our customer protection.

⁵ Monahan, M. (October 2013) 2013 Gang Of Five: Apple, Google, Amazon, Facebook, and PayPal-eBay: Threat of the Mobile Wallet Disruptors. Retrieved November 23, 2014, from: <https://www.javelinstrategy.com/brochure/298>.

Security and Innovation in Mobile Payments

At PayPal we believe our customers' security is a top priority. To provide you an example of this importance, I'd like to discuss one of the ways we are using mobile devices to enhance the effectiveness of our customer protection.

Mobile Authentication

Online businesses have typically achieved authentication through a combination of username and passwords, supplemented in the background by risk models looking for anomalies in the customer's log-in or transaction details. This approach has been the standard on desktop computers since before PayPal helped pioneer digital commerce and online shopping experiences, and this is still the way that most users understand authentication. Biometric authentication features on mobile devices are radically changing this model and subsequently, minimizing damage done in a breach or hack. Through PayPal's leadership and collaboration with Samsung and the FIDO Alliance ([Fast Identity Online](#)), PayPal was the first payment company to introduce fingerprint biometric payment authentication on Android mobile devices. Our technique uses a unique ID that is tied to the device in conjunction with biometric data, with the data stored on the device, not stored in any central database. Pairing up device and transaction location is a valuable feature when assessing transactions for fraud, and reduces the chance of stolen data being used fraudulently. When the geolocation feature is enabled on a mobile device, suspicious behavior such as fraudulent activity and account takeovers are easier to identify. Imagine that charges from a payment account are attempted at a physical store in New York City but PayPal knows the account holder is located in San

Francisco due to a very recent transaction on her mobile device. The location disparity allows businesses to quickly identify illegitimate transactions.

When using mobile devices, there is some confusion about the way that the transactions occur. The online segment of the mobile transaction is the authentication piece only- the user's credit card numbers are never exposed to the device. Instead of storing financial and identity information on mobile devices, PayPal's infrastructure is built so that critical account and payment information is stored in the cloud. This means that the three elements required to make a mobile transaction: the device, the fingerprint, and the credit card data, never reside in the same location at the same time. These elements coupled with geolocation reduce the scalability of fraudulent transactions.

Mobile Enabling Financial Inclusion

At PayPal we've learned that mobile technologies can serve as a tool for financial inclusion by harnessing the power of mobility to "bring the institutions to the person". According to the Corporation for Enterprise Development (CFED), there are 9 million unbanked households in the United States. Most unbanked cities in America are in very small and rural towns - 36 of the 100 most unbanked places are in Texas, 17 are in Mississippi, and 10 are in Arizona.⁶

The residents in these rural communities face limited options when it comes to managing and moving their money. In order to make a deposit or withdrawal, people must travel long distances to find a bank branch or ATM location, and when they do, they can be hit with high fees associated with their transactions. At PayPal our goal is to offer another solution, an alternative technology to meet their needs, which includes mobile

⁶ Geiling, E. (2015). The Most Unbanked Places in America. Retrieved October 26, 2015, from https://cfed.org/newsroom/experts/ethan_geiling/the_most_unbanked_places_in_america/.

payments. PayPal's President and CEO, Dan Schulman has made financial inclusion a high priority of our company. The prominence of cell phones and access to broadband has positioned mobile to play a role in filling the gap for the 20% of the population that sit outside the traditional banking system. As a starting point, we have expanded the availability of prepaid cards as a method for funding PayPal transactions. As the committee continues to discuss mobile payments, we urge you to keep in mind the connection between broadband and mobile broadband deployment and its impact on members of underbanked communities.

Conclusion

Thank you for the opportunity to testify today. Although PayPal has been leading the mobile payments space for a number of years we still think of ourselves as an innovator. Having recently spun-off from eBay Inc. earlier this year, we like to say that we are a 17 year-old start-up. We also support other start-up businesses through programs like Startup Blueprint, which offers business advice and free processing on the first \$50,000 of payments to selected startup companies, and PayPal Working Capital, which offers working capital loans to qualified merchants through a bank partner. However, like any start-up we are guided by core commitments, which in our case include building a trusted relationship with our consumers based on our ability to protect their data and provide them with as frictionless an experience as possible.

I look forward to answering any questions you may have.