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PAYMENTS 2.0: DRAFTING OFF THE CONSUMER ECOMMERCE AND SOCIAL INTERNET WAVE

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Much has been published about, and many dollars have been invested behind, the current eCommerce and Social Media revolutions. At Accel, we've been fortunate to have a front-row seat to these trends as investors in a number of leading companies – such as Facebook, Groupon, Dropbox, and mobile apps like Angry Birds (dba Rovio) and AdMob – that are reshaping the consumer web experience.

In many ways these companies are fundamentally redesigning basic commerce, as consumers are increasingly making buying decisions and executing transactions through online, social, and mobile channels. Our recent work at Accel suggests that over 50% of buying decisions are now initially researched via social networks or mobile applications.

This shift in consumer behavior has profound implications for a number of supporting technology sectors beyond just e/mobile-commerce and social networks. One such sector that is being disrupted is Payments (defined here as companies providing solutions for how consumers transmit funds and how merchants accept and process transactions), which is the subject of this whitepaper. Just as PayPal helped create "ePayments" in the dotcom boom of the late 90's (on the backs of traditional brick-and-mortar merchants aiming to enable online consumer purchases on eBay), a new generation of payments applications are emerging today in response to the evolving needs and behaviors of today's online consumers AND web 2.0 merchants.

Adding further fuel to the fire is the simple fact that the stakes are large: the payments industry generates worldwide revenues of more than $900 billion each year. In most cases, though, payment technologies serving offline, and even online, transactions were built decades ago (a number of POS terminals still use dial-up connections and the most prevalent online payment acceptance tools – Authorize.net and PayPal – were developed over a decade ago). Given the size of the payments market and opportunity for technology disruption, we believe there will be a number of new multi-billion dollar businesses built in this category over the next 5-7 years. As such, Payments has been an increasingly important focus at Accel, resulting in six investments in this sector over the last twelve months.

In this paper, we take a more detailed look at the factors driving this disruption and also highlight the payments businesses we believe are responding to this "new consumer." In short, the winners in this Payments 2.0 era will likely design products and services serving consumers "where they are," rather than traditional environments of a store with cash or credit card in hand.

As for organization of this paper, we'll look at solutions for merchants first (both online and offline) and consumers second (particularly the impact of limited payment product access, micropayments, and mobile).

FOR MERCHANTS, IT'S ALL ABOUT MAKING THE DIFFICULT EASY

The Trend. Merchants are increasingly faced with a multitude of challenges for accepting and managing payments, as consumers want to pay with a variety of new instruments like mobile phones or new forms of credit like BillMeLater (more on these products later). These acceptance issues are exacerbated for online merchants who must: 1) meet PCI compliance (the global standard for accepting card payments and fraud prevention) and country-specific regulations, 2) have capacity to accept payments from international customers, 3) allow consumers to pay via alternative channels, like mobile, 4) decipher amongst various payment brands to accept – PayPal, Visa, MasterCard, Amex and even alternatives like PaySafeCard and UKash, 5) set-up merchant accounts with business models that are often hard for traditional banks and processors to understand, and 6) make sure the payment experience does not impact the consumers' desire to (and momentum toward) make the ultimate purchase.

Solutions for Online Merchants. While large online merchants like Amazon have teams dedicated to solving these issues, the average small/mid-sized enterprise ("SME") does not. This has created an opportunity for innovative new business models attempting to minimize online SME pain points. From a monetization perspective, we believe companies with simple, scalable, low-priced, web-based solutions addressing these numerous pain points are best poised for disruption and SME market success. Here are a couple of examples:

Braintree

- Provides software allowing online and mobile commerce companies to seamlessly integrate non-disruptive payment functionality into the consumer process-flow

- Flexible and developer-friendly APIs – products are currently portable across Ruby, Python, PHP, Java, .NET, and node.js frameworks
- Rapid install period, allowing SMEs to achieve PCI compliance and payment functionality almost immediately
- Stores credit card information remotely and securely for merchants, assisting with security and compliance
- Proven product scalability, allowing merchants to accept large purchase volumes over short time durations (for example, the Company powered LivingSocial's Amazon gift card sale, yielding $13 million worth of vouchers in less than 24 hours)
- Leading web, mobile, and software customers like OpenTable, Airbnb, HotelTonight, 37 Signals, LivingSocial, and GitHub
- Annual growth in excess of 600% since inception, Company will process over $3 billion in annual transaction volume relying mostly on word-of-mouth referrals for new customer acquisition
- Headquartered in Chicago, IL; Accel invested in Braintree in July 2011; www.braintreepayments.com

OzForex

- Enables SME's and consumers to make large dollar international payments online
- Use cases include settling international payables, paying employees overseas, and assisting consumers with cross-border payment needs (i.e. foreign university tuition)
- SME payments occur via the web utilizing proprietary technology – enabling foreign currency trades at rates discounted to traditional brick-and-mortar banks
- Company has partnered with a number of global, money-center banks including Bank of New York Mellon, Barclays, Credit Suisse, Deutsche Bank, and Macquarie
- Headquartered in Sydney, Australia with offices in London and Toronto; Accel and The Carlyle Group invested in OzForex in November 2010; www.ozforex.com

Solutions for Offline Merchants. Online merchants are not the only ones with payment acceptance pain points as offline SME's have dealt with many of these same issues for a long time, including: 1) procuring merchant accounts and card processing agreements at reasonable rates (studies suggest half of SME's do not even take credit cards; in certain industries like rent payment acceptance, the percentages are staggeringly lower – in the low single digits), 2) dealing with outdated POS technology, when they do accept cards, that is not flexible enough to accept the new payment products consumers are willing to use (see consumer section below) – like mobile wallets or Groupon discount vouchers, and 3) a lack of data on customers and ability to communicate with customers after the sale, that could be mitigated through ties into Facebook and other sources of customer information.

A number of interesting businesses are emerging to help mitigate these problems. Some, like Yapstone, are working to move arcane payment sectors (like apartment rentals) into the credit card and online payment world. Others, like Square, are betting that mobile devices and tablets can solve SME's pains and become the cash registers/POS terminals of tomorrow; by offering merchants a new way to not only accept payments, but to track customer and purchase behavior data as well. Both companies are described below in a bit more detail:

Yapstone

- Provides payments-as-a-service technology for brick-and-mortar property managers, particularly in the apartment and vacation rental markets, enabling receipt and processing of electronic payments
- Proprietary technology includes unified, real-time reporting platform for check conversion, credit/debit card processing, and electronic check processing
- Works with majority of top rental property managers in U.S. and is largest payment processor in this market; vacation rental customers currently include HomeAway, the online market leader in this subsector
- Growing in excess of 40% annually, Company will process over $4 billion in annual transaction volume
- Based in San Francisco, CA; Accel and Meritech invested in Yapstone in June 2010; www.yapstone.com

Square

- Allows anyone to accept credit card payments via mobile device or tablet
- No contracts or merchant account needed to begin taking noncash payments
- Enables merchants to track sales and customer data through simple and well-designed user interface
- "Card Case" product allows Android and iPhone users to i) track receipts and spend digitally, ii) open digital tabs at participating Square vendors, and iii) obtain directories of local merchants
- Company expects to process over $1 billion in transaction volume over the next 12 months
- Co-founded in 2009 by Jack Dorsey, co-founder of Twitter
- Based in San Francisco, CA; Investors include Khosla Ventures, First Round Capital, Kleiner Perkins, Sequoia Capital, Visa, and Tiger Global Management; www.squareup.com

CONSUMERS ARE FINDING "NEW" WAYS TO PAY

The Trend. Just as SME's are looking to new technologies to manage online and offline payments, consumers are increasingly considering "alternative" brands – like PayPal, Google Checkout, PaySafeCard, and Facebook Credits – to make payments, instead of traditional credit cards and bank-sponsored debit cards.

While credit cards are still the dominant form of online payment (responsible for ~$100 billion in volume in 2010), their grip on the market is decreasing. By 2015, we estimate that "alternative" players will more than double their market share of online payments volume from 10% to 20% and see several sub-trends driving this growth:

1. *Access.* The internet has made the world a much smaller place and many consumers are not able to procure traditional credit or debit card products globally (often due to age, level of income, or geography) to even make online payments. Even in the U.S., it is estimated that over 50 million households have little to no relationship with a bank, and many of these "underbanked" households are struggling to access traditional credit in the wake of the recent financial downturn, as loan officers across the board maintain tight standards.

The Solution. Accordingly, consumers are forced to look to third-party options for basic online shopping, bill pay, and credit. Companies offering these products are often blending payment and financial services applications in new, innovative ways:

Rush Card
- Provides only branded prepaid debit cards and other financial services to "underbanked" via the internet and other direct channels
- Cards function like typical bank-backed debit cards (and run on Visa network) but are loaded by cash instead of a bank account, often through direct deposit from a customers' payroll
- With over 2 million cards distributed to date, provides customers opportunity for online payments, direct bill pay, healthcare discounts, insurance, and personal financial management tools
- Users can exchange money with other users via P2P mobile money transfer
- Based in Cincinnati, OH with offices in New York, NY and San Francisco, CA; www.rushcard.com

BillFloat
- Provides small-dollar loans to consumers specifically for bill payment purposes, such as cell-phone and cable bills
- Technology scores customer payment history and aims to provide interest rates far lower than what customers traditionally are offered from payday lending businesses
- Supports over 3,500 billers nationwide, including MetroPCS and DirecTV
- Based in San Francisco, CA; investors include First Round Capital, PayPal, and Venrock; www.billfloat.com

2. *Microtransactions.* A large payments market is emerging within social and other online networks, as companies like Facebook and Tencent create their own "virtual currencies." Most often, these currencies are offered in an effort to capitalize on the sale of in-application "microtransactions" for good and services, like purchasing goods for your farm in Zynga's wildly popular online game, Farmville.

Overall, this microtransaction market is now yielding +$2.5 billion in revenue annually in the U.S. alone, and we expect it to grow at +50% annual rates. As consumers make more purchases of virtual items (and increasingly spend more time in these virtual applications), the prospect of paying with a credit card is often unavailable, or difficult, for transactions under $1 USD.

The Solution. Micropayment solutions tend to follow one of two forms: 1) the respective virtual world, or website, offers its own form of currency (for Facebook in the form of "Credits" – see below; for Tencent in the form of "Q Coins"); or 2) consumers use third party, prepaid products, built specifically to make virtual purchases. Examples include:

Paysafecard
- Provides a prepaid card that is purchased in retail locations and then used solely for online transactions, primarily gaming
- Product works as follows: After receiving Paysafecard pin #, customer enters number in web store of his/her choice (as long as the merchant site accepts Paysafecard)
- Requires no personal data or bank account information on the consumer end
- Available at over 300,000 sales outlets worldwide, primarily in Europe
- Based in Vienna, Austria; www.paysafecard.com

Facebook Credits
- Currency offered by Facebook for users to make purchases within Facebook applications
- On July 1, 2011, Facebook made Credits mandatory for purchases within Facebook ecosystem
- Similar to Apple's iTunes store, Facebook earns 30% on payments made using Credits
- Facebook users can currently purchase Credits via credit card or PayPal
- Initial impact will be on social gaming, but credits are expected to have appeal outside of Facebook – for instance, American Express is offering them as rewards to cardholders
- Based in Palo Alto, CA; initially funded by Accel in 2005; www.facebook.com

3. *Mobile.* As hard as it is to believe that the iPhone has only been in existence for roughly 4 years and the current Android operating system is just over 30 months old, the devices built on iOS and Android have essentially put a personal computer in consumers pockets 24x7, leading to large increases in mobile browsing and commerce. As such, we expect global mobile payments volumes to grow at over 100% annually through 2014, to approximately $55 billion per annum.

The Solution. While there are many articles written on this subject, it is still too early to know who will become the dominant mobile payments company, given the multitude of participants (from payment networks like Visa and Mastercard to the mobile operators like Verizon and AT&T) and technology innovations (MicroSD cards, NFC, etc.), to online giants like Google (who recently revealed their own mobile wallet) and PayPal. One of the core challenges in any mobile payments rollout is the classic "chicken-or-egg" issue: without a sufficient customer base, merchant adoption of new technologies and products will likely lag and vice-versa. For example, currently less than 12% of U.S. merchants can accept contactless (mobile) payments. Some emerging players to watch are:

VIVOtech

- Provides contactless mobile payment and NFC solutions including: contactless payment readers, software for enabling location-based mobile marketing and promotions, and contactless payment stickers
- Installed more than 800,000 NFC readers in 35 countries (including retailers like McDonalds, Home Depot, and Whole Foods) to-date
- For Google's mobile wallet, VIVOtech is providing the NFC-enabled POS readers
- Based in Santa Clara, CA; investors include Motorola Solutions Venture Capital, Alloy Ventures, Citi Ventures, Draper Fisher Jurveston, First Data Corporation, Miven Ventures, Motorola Mobility, Nokia Growth Partners, and NCR; www.vivotech.com

PayPal

- Remains the alternative payment provider with the most reach, and therefore the leading force to be reckoned with in mobile
- PayPal has more than 90 million active users worldwide, with total payment volume representing 15% of global eCommerce transactions
- Mobile payments volume on PayPal network is growing at over 300% per year
- Recently acquired Zong (July 2011) for managing online purchases of digital goods ($240m acquisition)
- Acquired by eBay in June 2002; www.paypal.com

CONCLUSION

If there's one takeaway from this paper, it should be that we're embarking on a new era in payments, in which the giant payments processors (like First Data) and card networks (like Visa) of yesteryear are not the only ones building businesses of value. Indeed, both merchants (those who "accept" payments) and consumers (those who "make" payments) are increasingly looking to, and trusting, new companies for payments solutions. And not only are these new payments businesses scaling quickly, they are also being rewarded with better public multiples upon exit than their payments 1.0 brethren (see BillMeLater's sale to eBay, CyberSource's sale to Visa, GreenDot's successful IPO, etc.).

Investing in this category, however, is not without risk. As the 2010 Durbin legislation (affecting debit card interchange) has proven, the payments sector is under constant regulatory change. In addition, new mobile payment technologies threaten to disrupt the entire ecosystem, and the mobile carriers are deploying significant funds to gain a share of the pie. Having a successful mobile strategy is paramount to success in this sector moving forward and requires meaningful investment, particularly given how many buying decisions are being made through mobile devices.

Despite these risks, we at Accel continue to actively invest in this market. Since 2010, we have made several payments investments, including: Braintree (payments gateway for online and mobile merchants); OzForex (an international online foreign exchange payments platform); Venmo (a mobile P2P money transfer service); Wonga (an online small-dollar lender); and Yapstone (an online vacation home and rental property payment services platform). We expect this investment pace to continue going forward and look forward to partnering with entrepreneurs who see these market trends as an opportunity to build disruptive businesses.

Ryan Sweeney is a partner at Accel Partners in Palo Alto and leads growth investments in Software/SaaS, Consumer Internet, Financial Technology, and Payments companies. Investments Ryan has been involved with include Braintree, OzForex, Squarespace, Groupon, 99designs and Atlassian.

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