# **ENILSAN REPORT**

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AUGUST 2016 / ISSUE 109

#### U.S. Mastercard/Visa Credit Cards at Midyear

The top 100 U.S. issuers of Mastercard and Visa credit cards are ranked by outstandings at June 30, 2016, and by total volume for the first six months of this year on pages 8 and 9. Figures for year-end 2015 were published in issues 1081 and 1083.

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#### Top U.S. GP Credit Card Issuers at Midyear

The 11 largest issuers of general purpose (Visa, Mastercard, American Express, and Discover) credit cards in the U.S. at midyear 2016 accounted for \$673.68 billion in outstandings as of June 30, 2016 (up 4.5%), and \$1.307 trillion in credit card total volume (up > see 0.7

#### Mahindra Comviva's Mobiquity Money

Mobiquity Money is the product name of Mahindra Comviva's mobile payment platform capable of handling transactions from multiple access channels including NFC, USSD, IVR, SMS, STK, mobile apps, and online consumer portals. The company has 65

#### Wirecard Expands to the U.S.

Citi's U.S.-based prepaid card business will be purchased by Germany-based Wirecard, which will gain its first assets in North America. The price was not announced. Wirecard, which earns a majority of its revenue in Europe from merchant acquiring

#### **Nethone Fraud Fighting Technology**

Nethone began building business intelligence models for revenue growth and customer retention before moving into ecommerce fraud fighting. It builds different risk models (chargebacks, authorizations, customer behavior prediction, and more) for each

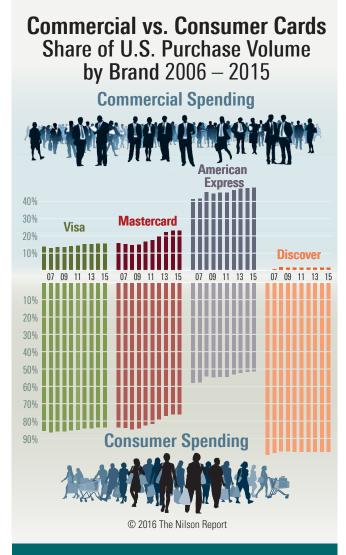
#### **Chip Card Manufacturers**

Shipments of chip cards reached 11.56 billion last year, up 15.1% from 2014. Nearly one-third of those were payment cards with chips - 3.43 billion, up 31.4%. The rest were cards embedded with SIMs for mobile handsets, cards used for transportation and

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- 5 Purchase Volume on U.S. Cards Credit Card Issuers Midyear 2016:
  - Top U.S. General Purpose Cards
- 9 U.S. Visa/Mastercard Credit Card Volume
   10-11 Chip Card Shipments by Manufacturer. Category. and Type of Card



#### U.S. Commercial Cards — Part 3

Combined consumer and commercial credit, debit, and prepaid general purpose cards from U.S. issuers generated \$4.786 trillion in purchase volume for goods and services in 2015. Commercial card products used by employees of private companies, government agencies, and nonprofit organizations generated \$1.066 trillion in purchase volume,

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# FAST FACTS

#### AUGUST 2016 ISSUE 1093

No paid advertising.

#### No sponsored content of any kind. Ever.

It is never permissible for subscribers to forward or print this issue. Doing so violates copyright laws. WALGREENS, the largest U.S.-based pharmacy chain with 8,200 stores, offers its 85 million active Balance Rewards loyalty program customers the ability to integrate their loyalty account with Android Pay. Integration of Walgreens Balance Rewards with Apple Pay is also offered. *Barry Hanen is Manager, Payments and Card Services,* (847) 315-3765, barry.hanen@walgreens.com, www.walgreens.com.

**CARECREDIT**, a unit of Synchrony Financial, offers financing to patients of healthcare providers. The company's new CareCredit Direct service allows patients to apply for financing and receive an immediate decision without leaving the provider's office. *Dave Fasoli is CEO at Care-Credit, (714) 434-4100, dave.fasoli@synchronyfinancial.com, www.synchronyfinancial.com.* 

**MUNICIPAL PARKING SERVICES (MPS)**, the top manufacturer of smart parking meters, will integrate Cardis's aggregation technology for processing low-value payments into its parking meters. *Jonathan Nierenberg is CMO at Cardis International, (516) 374-9500, jonathan@ cardis-international.com, www.cardis-international.com.* 

**COMPUTER SERVICES, INC. (CSI)** has extended its long-term relationship with ACI Worldwide for fraud detection services. CSI offers ACI technology to its financial institution and other customers. ACI Proactive Risk Manager monitors debit card transactions and identifies fraudulent transactions before they occur. *Derrick Bretz is Director of Payment Services at CSI, (270) 442-7361, derrick.bretz@ csiweb.com, www.csiweb.com. Andreas Suma is VP at ACI Worldwide, (402) 390-7600, andreas.suma@ aciworldwide.com, www.aciworldwide.com.*  **MASTERCARD** and **PLASTIQ**, an online payment service, are offering cardholders in China the ability to use local credit and debit cards to pay tuition and other costs in the U.S. Planet Payment is providing currency conversion services. *Linda Kirkpatrick is EVP, U.S. Market Development at Mastercard, (914) 249-1804, linda.kirkpatrick@ mastercard.com, www.mastercard.com. Eliot Buchanan is CEO at Plastiq, (617) 984-9223, eliot@plastiq.com, www.plastiq.com.* 

**Q-CARD** has achieved Amex Enabled accreditation for physical card testing of American Express payment products. *Jeff Myers is Director of Sales and Marketing at Q-Card, (570) 286-7447, j.myers@brush-qcard.com, www.q-card.com.* 

**ID INSIGHT** has expanded its identity verification-based anti-fraud prevention platform to provide better intelligence about phone number changes as well as email and IP address verification. *Adam Elliott is President, (651) 291-3557, adam.elliott@idinsight.com, www.idinsight.com.* 

PHILLIPS 66, CONOCO, and 76 branded gas stations and C-stores will offer consumers a mobile app to facilitate payments through a processing deal with Chase. Consumers using the Chase Pay mobile app will also be able to pay at the pump and in-store. Mobile commerce infrastructure vendor P97 Networks will enable the transactions. *Sally Lechin is Director, Card Marketing & Loyalty at Phillips 66, (832) 765-3447, sally.f.lechin@p66.com, www.p66.com. Tom Nipper is Executive Director, Global Enterprise Solutions at Chase Commerce Solutions, (813) 760-7897, tom.nipper@jpmorgan.com, www.chase.com.* 

#### **Conferences & Seminars**

#### Payments East Africa 2016:

September 27-28, 2016. The Radisson Blu Hotel, Nairobi, Kenya. Estimated attendance: 1,000. Cost for the two-day conference is \$1,100. *Subscribers to The Nilson Report will receive a 20% discount. (Use code XFMH.) Contact Prima Castelino at Terrapinn, 971 (4) 440-2535, prima.castelino@terrapinn.com.* Register at www.terrapinn.com/ conference/cards-paymentseast-africa/. Mobey Day 2016: October 5-6, 2016. The CosmoCaixa, Barcelona, Spain. Estimated attendance: 350+. Cost for the two-day conference is \$2,525 (€2,238.50), nonmember banks \$850 (€750). Subscribers to The Nilson Report will receive a 25% discount. (Use code MD1625%.) Contact Shalini Sharma at Mobey Forum, 358 (50) 486-3743, shalini.sharma@ mobeyforum.org. Register at www.mobeyforum.org/events/ mobey-day-2016/.

## 8th International PLUS-Forum Cards, Payments and Mobile

2016: October 5-6, 2016. The Exhibition and Convention Centre "Sokolniki," Moscow, Russia. Estimated attendance: 1,100. Cost for the two-day conference ranges from \$74 to \$695 (€65 to €615). Subscribers to The Nilson Report will receive a 20% discount. Contact Oksana Bykova at Plus Alliance Group, 7 (495) 961-1065, marketing6@ plus-alliance.com. Register at www.plus-forum.com/ forum\_2016\_en/oct/.

#### Trustech 2016 — CARTES:

November 29–December 1, 2016. The Palais des Festivals de Cannes, French Riviera, Cannes, France. Estimated attendance: 18,000. Cost for the three-day conference is \$1,680 (€1,500). Subscribers to The Nilson Report will receive an exclusive discount: €1,100 (US\$1,249). (Use code TTPAR1.) Contact Jean-Bernard Guyot at

Comexposium, 33 (1) 7677-1384, jean-bernard.guyot@ comexposium.com. Register at www.trustech-event.com.

#### Figures include cards in circulation and spending **Credit** & Debit Card Issuers in 115 Countries from all World Regions



#### Asia/Pacific, United States, Europe, Canada Latin America, Middle East/Africa

Merchant Acquirers in 76 Countries from all World Regions

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**DISCOVER** has joined Visa, Mastercard, and American Express in offering merchants the option of streamlining the checkout process for all chip card transactions. Discover Quick Chip will reduce the time a card needs to remain in a POS terminal. Discover, Diners Club, and Pulse cards are covered. *Ellie Smith is Head of the Chip Center of Excellence at Discover, (623) 643-4154, elinorsmith@discover.com, www.discover.com.* 

**NATIONAL BENEFIT PROGRAMS**, which provides ISOs with whitelabeled web portals where their merchant clients can obtain discounts to products and services, has added a business identity theft protection service. iDefend Business monitors business and personal information and instantly alerts users of any suspicious activity. It also provides identity recovery services for businesses that have already been compromised. *Gary Alloy is CEO*, (770) 394-7550, gary@nationalbenefitprograms.com, www.nationalbenefitprograms.com.

AMERICAN EXPRESS CANADA has launched the no-annual-fee Essential Credit Card with an interest rate of 8.99%, the lowest available on any Amex card product in the country. *Aileen Kheraj is VP, Lending Products & Partnerships, (437) 836-5135, aileen.a.kheraj@aexp.com, www.americanexpress.com.*  **GEOSWIFT,** a provider of cross-border payments between China and the rest of the world, has formed a partnership with Western Union Business Solutions and UnionPay to provide end-to-end tuition payment services for Chinese students studying in the U.S., Canada, Australia, and New Zealand. The U.S. receives about 250,000 Chinese students annually. Australia and New Zealand see close to 100,000, and Canada receives approximately 35,000. *Raymond Qu is CEO at Geoswift, (852) 2312-2168, raymond.qu@ geoswift.com, www.geoswift.com. Kerry Agiasotis is President, Business Solutions at Western Union, 44 (208) 576-5771, kerry.agiasotis@ westernunion.com, www.westernunion.com. Huiming Cai is General Manager of Strategic Planning at UnionPay, 86 (21) 2026-5946, caihuiming@ unionpayintl.com, www.unionpayintl.com.* 

**VIETCOMBANK** in Vietnam will issue a co-brand card with department store Takashimaya on the JCB network. The bank has issued JCB cards since 2012. *Tomokazu Mikami is Deputy Chief Representative at JCB (Thailand) in Hanoi, 84 (4) 3939-2508, tomokazu.mikami@jcbi.com.vn, www.global.jcb/en/, Trinh Thuong Thuc is Deputy Head of Cards at Vietcombank, 84 (8) 3915-2294, thuctt.hcm@vietcombank.com.vn, www.vietcombank.com.vn.* 

**XPRESSA**, an online payment gateway and point-of-sale service provider in South Africa, will deploy Planet Payment's multicurrency pricing (MCP) technology through Absa, its acquiring bank. MCP enables international customers to view pricing and pay using their home currencies. Xpressa merchants will receive settlement in South African rand. *Jonathan Ellis is Managing Director EMEA at Planet Payment*, 44 (7816) 673-980, jellis@ planetpayment.com, www.planetpayment.com. Ian Pitman is Managing Director at Xpressa, 27 (11) 803-3509, ianp@xpressa.co.za, www.xpressa. co.za. Geoffrey Lee is Head of Absa Card, 27 (10) 246-4035, geoffrey.lee@ absa.co.za, www.absa.co.za.

#### **Management Changes**

Lane Dubin has been appointed Senior Vice President, Sales and Marketing at CPI Card Group, (303) 973-9311, Idubin@ cpicardgroup.com. Alfredo Vitangcol has been appointed General Manager in the Philippines at RS2 Software, 63 (917) 892-2138, alfredo.vitangcol@rs2.com. Ivo Distelbrink has been appointed EVP, Head of APAC at First Data, (65) 6511-8708, ivo.distelbrink@ firstdata.com. Roberto Valerio, CEO at Risk Ident, has been appointed to the European Advisory Board at the Merchant Risk Council, 49 (40) 6094-52590, roberto@riskident.com. Anton Wurr Sterling Payment Technologies, (813) 369-6085, anton.wurr@ sterlingpayment.com. Grace Chan has been appointed Senior Business Leader, China Consumer Products Lead Product Management at Mastercard, 86 (21) 6105-1900, grace.chan@ mastercard.com. Regina Cheung has been appointed Mastercard, 86 (21) 6105-1900, regina.cheung@mastercard.com. Jeanna McBain has been appointed Vice President, Controller at TMG, (515) 457-2000, jeanna.mcbain@tmg.global.

**ENCASH** (Electronic Network Cash Tellers) in the Philippines will deploy Fexco EasyDebit, a service that uses a mobile point-of-sale terminal or PIN entry device in combination with a mobile phone to allow customers to withdraw cash using their ATM card at any accredited merchant. The service will be available to over 75 million BancNet cardholders. Fexco EasyDebit is PCI DSS and EMV Level 1 & 2 compliant. PINs are not stored in the mobile phone. *Eric Severino is CEO at Encash, 63 (2) 892-5092, eseverin@ encash-ph.com, www.encash-ph.com. Denis McCarthy is CEO at Fexco, 353 (66) 976-1258, dmccarthy@fexco.com, www.fexco.com.* 

**SWISSCARD**, a joint venture between Credit Suisse and American Express since 1998, will continue to process its consumer and commercial card portfolios on the TSYS TS2 platform. Swisscard is the largest American Express, Visa, and Mastercard credit card issuer in Switzerland with 1.5 million cards. *Rob Hudson is Group Executive at TSYS International, 44 (1904) 562-025, rhudson@tsys.com, www.tsys.com. Marcel Buehrer is CEO at Swisscard, 41 (44) 659-3535, marcel.b.buehrer@swisscard.ch, www.swisscard.ch.* 

**CSOB**, part of KCB Group, has launched the first NFC-based mobile wallet for Android devices in the Czech Republic that supports both Mastercard and Visa cards in the same app. SIA is providing host card emulation support including VIsa and Mastercard tokenization for primary account numbers. *Nicola Cordone is SVP and Int'l Division Director at SIA, 39 (02) 6084-4900, nicola.cordone@sia.eu, www.sia.eu. Milos Mincic is Change Manager, Products and Integrations at CSOB, 420 (724) 635-944, mmincic@csob.cz, www.csob.cz.* 

#### **Featured Conference**

#### **PAYTHINK 2016**

Three-Day Conference September 12-14, 2016 The Hyatt Regency New Orleans, Louisiana

Topics include: adding cardless capabilities to ATMs, the impact of the fintech sector, the debit industry and the growth opportunities, outsourcing your ATM, making real-time payments real, partnering with new technology firms to drive innovation, and modernizing the branch experience. Speakers represent: Wells Fargo, KeyBank, BBVA, USAA, US Bank, Bank of America, Google, Samsung Pay, Bank of Internet, Tokken, nanoPay, Ingo Money, Cardfree, World First, BitPay, Payveris, Mastercard, Discover, Star, Visa, NYCE, Pulse, Microsoft, Verifone, The Clearing House, the Federal Reserve, and more. Cost ranges from \$995 to \$1,995. (Use discount code NILSON.) *Contact Ingrid Olsen at (212) 803-8456, ingrid.olsen@sourcemedia.com or Stephanie DeMartino at (212) 803-6091, stephanie.demartino@ sourcemedia.com.* **Register at** www.paythinkforum.com.

Subscribers to The Nilson Report will receive a \$400 discount.

contact Techn com or Cost i no@ code l bichik SAVE www

Subscribers to The Nilson Report will receive a 20% discount.

**AYEYARWADY BANK** (AYA Bank) in Myanmar has launched the first JCB credit and debit card products in the country. *Yuji Matsushita is Country Manager of JCB Thailand Yangon Branch, 95 (1) 860-3397, y.matsushita@jcb-intl.com, www.global.jcb/en. Colin Thura Maung is Director at Ayeyarwady Bank, 95 (9) 516-9158, colintm@ayabank.com, www.ayabank.com.* 

**GLOBAL PAYMENTS** will provide EMV and contactless mobile payment acceptance for Mary Kay independent beauty consultants in Canada. Consultants will receive a Bluetooth-enabled reader that pairs with their Apple iOS or Android smartphone or tablet. *Rene Belanger is President, Canada,* (416) 847-4333, rene.belanger@globalpay.com, www.globalpaymentsinc.com.

**VISA** is promoting Apple Pay contactless payments with card issuers in Hong Kong and Macau. *Caroline Ada is Country Manager, Hong Kong and Macau at Visa, (852) 2842-2309, acarolin@visa.com, www.visa.com.* 

**WORLDPAY**, the 6th largest merchant acquirer worldwide, will provide payment acceptance for China Eastern Airlines at the carrier's local websites in 17 countries. *Shane Happach is Managing Director, Global eCommerce at Worldpay, 44 (203) 664-5265, shane.happach@worldpay.com, www.worldpay.com.* 

**ELAVON'S** Simplify payment software for hotel property management systems has been chosen by Ariane Systems, provider of self-service check-in/out technology to more than 3,000 hotel customers in 25 countries. Simplify handles EMV cards including contactless payments. For in-person kiosk card acceptance, Simplify immediately encrypts card data. *Simon James is SVP of Strategic Customer Solutions at Elavon, 44 (192) 365-1500, simon.james@elavon.com, www.elavon.com.* 

#### **Featured Conference**

#### **SCA - SECURITY OF THINGS 2016**

Two-Day Conference October 18-19, 2016 The Hilton Rosemont/Chicago O'Hare Rosemont, Illinois

Topics include: the security of things: a perspective on securing the IoT ecosystem, understanding security challenges of IoT, digital trust ecosystem, IoT security architectures and frameworks, cryptography of things: payment, security, and privacy, plus many track sessions that address the security of applications, mobile devices, and standards and best practices. Speakers represent: NXP Semiconductors, UL, Exponent, Intercede, Samsung, BitMint, Redwall Technologies, Gemalto, Experian, Online Trust Alliance, and more. Cost is \$895 until October 8, then \$1,045 after that. (Use discount

code NILSDISC.) Contact Bryan Ichikawa at SCA, (703) 582-7862, bichikawa@smartcardalliance.org. Register at www.sca-securityofthings.com.



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## Mahindra Comviva's Mobiquity Money

deployments in 48 countries involving 70 million registered users. Most are underserved

consumers in Africa, Asia, Latin America, and the Middle East. Last year, deployments collectively generated over 200 million transactions averaging more than \$4.00 billion a month.

## ...65 deployments in 48 countries with 70 million registered users.

Mahindra Comviva is the leader in mobile money in Africa, where there are 45 deployments in 32 African countries. Most deployments are by mobile network operators — Airtel, Orange (including Mobinil Egypt), Econet Wireless, Maroc Telecom, NationLink Somalia, and Somtel Somaliland. Other



partners are EcoCash, Barclays, and MobiCash. All involve agent locations where consumers initiate a

cash-in transaction to open an account then convert their local currency to emoney. Agents also perform the cash-out transaction, converting emoney back to local currency.

NFC-based payments at merchants are made in deployments by Airtel Money Tanzania, Airtel Money Rwanda, and EcoCash Zimbabwe. In Tanzania, mobile payments had been handled via USSD and SMS channels for 5 million consumers. Since January 2015, Airtel Money has issued plastic cards that link consumers to their accounts. Merchants are given a GSM-enabled, calculator-sized POS device with NFC

> see p. 12

#### U.S. Commercial Cards — Part 3 from page 1...

equal to 22.26% of combined commercial and consumer card purchase volume. This was a slight decline from 22.29% in 2014. Purchase volume on commercial cards grew by 7.6% last year, while purchase volume on consumer cards grew by 7.8%.

Visa purchase volume on commercial cards of \$430.00

billion was up 9.2%. It held a 40.35% market share versus American

Express, Mastercard, and Discover for 2015, up from

39.78% in 2014. Visa's consumer card purchase volume grew by 9.4% in 2015, and its market share

Purchase Volume on U.S. Cards\* in 2015 (Bil.) \* Credit, Debit, and Prepaid Consumer \$3,721 Commercial \$1,066 \$430 \$2.288 Visa Mastercard \$944 \$289 **Consumer Share of** \$372 \$345 Amex **Purchase Volume** 82.1 81.5 81.9 81.1 \$116 Discover \$2 80.4 ©2016 The Nilson Report

of all consumer card products was 61.48%, up from 60.59%.

Visa's market share was 40.35% vs. Amex, Mastercard, and Discover.

> At American Express, commercial card purchase volume of \$344.86 billion grew by 5.1%. Amex's commercial card market share slipped to 32.36% from 33.14% in 2014. Consumer card purchase volume at Amex grew by 4.5% in 2015, while its market share of those products at 10.01% fell from 10.32% the prior year.

> Mastercard commercial card purchase volume of \$288.74 billion increased 8.6% in 2015, and its market share of 27.10% was up from 26.86% in 2014. Mastercard purchase volume on consumer cards was up 7.4% in 2015, but its market share of those products at 25.38% was down from 25.46% in 2014.

> > > see p. 6

#### U.S. Commercial Cards — Part 3 from page 5

Commercial card purchase volume of \$2.04 billion at Discover dipped 7.3%, and its market share fell to 0.19% from 0.22%. Discover commercial card products are limited to small business credit (no longer being marketed) and debit cards. Purchase volume on Discover consumer cards declined by 6.9% in 2015, and its market share of those products at 3.13% was down from 3.62%. Commercial cards generated 48.08% of combined

consumer and commercial purchase volume at American Express, 23.42% at Mastercard, 15.82% at Visa, and 1.72% at Discover.

Prior issues: 1072, 1049, 1026, 1002

#### Wirecard Expands to the U.S.

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and related processing services including mobile payments, also issues prepaid cards in eight European countries directly and with mobile network operators.

## wirecard

Citi's customers are corporations and government entities that use prepaid Mastercard and Visa cards for incentives and commercial payments. Almost all of the cardholders are in the U.S.

There are no plans to consolidate Citi clients on Wirecard's prepaid card platform, which the company operates in Germany and Singapore. Citi's account

processing platform, which it picked up in the 2007 acquisition of Ecount, offers a few products not available on the Wirecard platform,

and Citi's customers will gain access to Wirecard's expertise in mobile prepaid. It was a pioneer in that area through technology capable of providing realtime card issuance and personalization. Wirecard believes there is significant growth opportunities, particularly in virtual mobile cards created for the exact amount of a single purchase.

In Europe, Wirecard issues prepaid cards from Wirecard Bank in Germany and Wirecard Solutions in the U.K. Marketing partners include mobile network operators Orange (France and Spain) and Vodafone (Germany, the U.K., Spain, and the Netherlands). Wirecard also issues a prepaid Mastercard product called Boon directly to consumers in the U.K., Germany, Ireland, Austria, Belgium, the Netherlands, and Spain. Wirecard supports Apple Pay and host card emulation (HCE) for Android handsets.

Last year Wirecard expanded into Asia with the acquisition of some assets of Singapore-based Visa Processing Services and all assets of Visa Processing Services (India) for \$16 million. Wirecard joined the Visa Issuer Processing Program, which matches

Citi's customers use cards for incentives and commercial payments. financial institutions with prepaid card account processors. Susanne Steidl is Managing Director,

Acquiring and Issuing at Wirecard in Aschheim, Germany, 49 (89) 4424-1600, susanne.steidl@ wirecard.com, www.wirecard.com.

Deirdre Ives is Global Chief Operating Officer at Citi in Conshohocken, Pennsylvania, (610) 234-4549, deirdre.l.ives@citi.com, www.citi.com.

#### **Nethone Fraud Fighting Technology**

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merchant and builds distinct models for mobile versus online transactions. The company touts its ability to quickly enable acquirers to on-board online merchants using a simple Java script tool.

In its risk models, Nethone deploys machine learning and a merchant's database of previous transaction history, information it supplements with data obtained from social media, email, and other sources. It then enhances that outside data, enabling it

to identify individual browser behavior and examine as many as 3,000 features of a potential buyer. These profiles help fight fraud and, equally important, fight false positives - a decline of a good transaction for fear of fraud.

The Nethone platform works well for merchants that don't have an in-house fraud fighting

## Nethone

staff. Customers in the U.S., Europe, and Latin America that do have in-house fraud fighters saw reductions of up to 50% in transactions designated for manual review. Chargebacks were cut to 0.3% of transactions for merchants that used only Nethone's machine learning. When merchants implement Nethone's Java script with machine learning, results improved even more. Through a service it calls Instant Rescue, Nethone can plug immediately into a merchant

> and temporarily help control fraud problems. With added integration, merchants can send Nethone the potential

buyer's behavior at every page on their website not only the payment page. Nethone can then alert the

merchant that the buyer is legitimate before they reach the checkout page.

Nethone can also tell merchants that multiple potential buyers stop at a particular place on a page but never buy, allowing a change to be made. Nethone helps with marketing and advertising to potential buyers that did not make a purchase. If they leave an email address, Nethone can create a profile from previous visits.

Nethone, which is cash flow positive, is part of DaftCode, a Poland-based software development house that creates web and mobile applications for business-to-business and business-to-consumer products.

## ...reduces transactions designated for manual review by up to 50%.

Aleksander Kijek is Vice President, Operations at Nethone in Warsaw, Poland, 48 (22) 100-5558, aleksander.kijek@nethone.com, www.nethone.com.

#### Top U.S. GP Credit Card Issuers at Midyear

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8.1%) for January 1 through June 30, 2016, versus the same periods the prior year. All figures include

### **Top U.S. General Purpose Credit Card Issuers** Midyear 2016

		Outstandir	igs		Total Volu	me
lssuer	Rank	(Bil.)	Chg.	Rank	(Bil.)	Chg.
JPMorgan Chase	1	\$131.59	5.8%	2	\$291.85	9.5%
Bank of America <sup>1</sup>	2	\$98.10	0.6%	3	\$160.41	5.8%
<b>Citibank</b> <sup>1</sup>	3	\$93.69	15.4%	4	\$124.34	12.9%
Capital One	4	\$82.54	12.3%	5	\$117.83	17.9%
American Express <sup>2</sup>	5	\$80.31	-14.3%	1	\$349.82	3.6%
Discover <sup>2</sup>	6	\$57.22	4.1%	6	\$63.41	3.9%
Wells Fargo <sup>1</sup>	7	\$36.67	11.0%	8	\$59.61	9.1%
U.S. Bank <sup>1</sup>	8	\$34.33	5.7%	7	\$59.66	11.3%
Barclays <sup>1</sup>	9	\$24.29	14.1%	9	\$36.01	6.6%
USAA <sup>1</sup>	10	\$18.13	3.4%	11	\$21.03	6.0%
Synchrony	11	\$16.80	9.9%	10	\$22.55	11.2%

American Express, Discover, Mastercard, and Visa consumer and commercial credit cards. Outstandings are as of June 30 and do not include retail, oil, or other private label cards. Volume is for January through June. Change is for midyear 2016 vs. midyear 2015. <sup>1</sup>Includes American Express business. <sup>2</sup>Direct issuing business only. Does not include third-party business. © 2016 The Nilson Report consumer and commercial card products combined. Figures shown for American Express and Discover represent only their direct issuing business. They exclude products issued by third parties, which are credited to those issuers.

American Express moved down to fifth from third vs. midyear 2015 when ranked by outstandings, mainly due to the sale of the Costco portfolio to Citibank.

This resulted in Citibank having the highest dollar increase in outstandings (up \$12.47 billion). Other large increases in outstandings included Capital One (up \$9.06 billion), JPMorgan Chase (up \$7.26 billion), Wells Fargo (up \$3.64 billion), Barclays (up \$3.00 billion), Discover (up \$2.27 billion), and U.S. Bank (up \$1.85 billion).

JPMorgan Chase had the highest dollar increase in total volume (up \$25.26 billion), followed by Capital One (up \$17.85 billion), Citibank (up \$14.17 billion), American Express (up \$12.08 billion), Bank of America (up \$8.86 billion), and U.S. Bank (up \$6.06 billion).

Issuers that had higher increases in total volume than the industry average of 8.1% included JPMorgan Chase, Citibank, Capital One, U.S. Bank, Wells Fargo, and Synchrony Financial.

## Outstandings Midyear 2016 U.S. Visa/Mastercard Credit Card Issuers

<b>Rank</b> '16 '15	lssuer	Outstandings (mil.)	Chg.	<b>Cards</b> (000)	Chg.	<b>Ra</b> '16	<b>nk</b> ′15	lssuer	Outstanding: (mil.)	s Chg.	<b>Cards</b> (000)	Chg.
<b>1</b> 1	JPMorgan Chase	\$131,591.0	6%	93,400	-3%	51	56	Security Service		15%	141	9%
<b>2</b> 2	Bank of America	\$95,372.0	2%	52,437	4%	52	54	Santander Bank	\$301.5	10%	241	14%
<b>3</b> 3	Citibank	\$91,487.4	16%	63,410	21%	53	52	BMW Bank	\$299.3	4%	229	10%
<b>4</b> 4	Capital One	\$82,541.0	12%	90,400	7%	54	53	Alaska USA FCU	\$287.9	2%	129	8%
<b>5</b> 6	Wells Fargo	\$36,031.7	11%	18,541	6%	55	60	Mountain Americ		15%	148	2%
<b>6</b> 5	U.S. Bank	\$34,211.6	5%	20,607	13%	56	55	Bank of the West	\$272.7	1%	240	-14%
<b>7</b> 7	Barclays	\$24,290.3	15%	15,731	5%	57	51	TIB Mich State Univ	\$271.9	-7%	377	2%
<b>8</b> 9 <b>9</b> 8	Synchrony Financial USAA	\$16,804.2	10% 3%	31,200 6 575	6% 5%	58 59	57 58	Mich. State Univ. Comdata	FCU \$267.5 \$254.4	5% 2%	233 2,833	66% 2%
<b>9</b> 8 <b>10</b> 10	Navy FCU	\$16,190.5 \$11,254.3	3% 13%	6,575 3,016	5% 12%	59 60	56 64	WEX	\$234.4 \$230.7	2% 13%	2,033 7,901	2% 11%
<b>11</b> 11	PNC Bank	\$6,017.9	8%	4,553	-1%	61	72	NASA FCU	\$230.0	26%	38	17%
<b>12</b> 12	First Nat'l of Omaha	\$5,447.5	10%	7,073	19%	62	61	Synovus Bank	\$221.9	-2%	228	13%
<b>13</b> 14	TD Bank	\$5,340.7	23%	5,867	19%	63	62	First Tech FCU	\$221.8	4%	150	5%
<b>14</b> 13	Cabela's WFB	\$5,168.7	16%	3,691	5%	64	78	GECU	\$221.3	33%	83	30%
<b>15</b> 15	Credit One	\$3,960.1	32%	8,735	31%	65	67	TMG Financial Se	ervices \$217.8	11%	148	21%
<b>16</b> 17	Alliance Data	\$3,919.1	63%	5,307	29%	66	71	Arvest Bank	\$205.6	12%	216	8%
<b>17</b> 16	Fifth Third	\$2,876.4	-3%	3,447	8%	67	68	Baxter CU	\$205.1	7%	132	12%
<b>18</b> 19	Merrick Bank	\$2,489.3	26%	2,687	30%	68	66	Redstone FCU	\$204.8	4%	103	5%
<b>19</b> 18	BB&T	\$2,123.8	-4%	1,665	5%	69	73	Logix FCU	\$204.4	16%	80	14%
<b>20</b> 21	SunTrust Bank	\$1,856.0	18%	1,715	15%	70	69	UBS Bank	\$200.8	6%	212	2%
<ul><li>21 20</li><li>22 23</li></ul>	Citizens Bank Pentagon FCU	\$1,623.8 \$1,528.6	-2% 5%	2,942 586	4% 10%	71 72	63 70	Patelco CU First Tennessee	\$195.0	-7% 0%	87 246	2% 11%
<b>22</b> 23 <b>23</b> 22	State Farm Bank	\$1,526.0	-1%	1,328	13%	72	70	Delta Community	\$189.6 CU \$184.1	10%	240 83	0%
<b>23</b> 22 <b>24</b> 24	Regions Financial	\$1,475.0	-1% 11%	1,320	8%	73	70	Municipal CU	\$183.5	10%	03 79	11%
<b>25</b> 27	Premier Bankcard	\$1,103.3	12%	3,048	5%	75	81	Members 1st FCU	\$178.5	12%	107	8%
<b>26</b> 28	Commerce Bank	\$962.8	-2%	807	3%	76	75	Wash. State Empl	• • •	4%	129	38%
<b>27</b> 29	BMO Harris	\$956.8	9%	726	-5%	77	79	FirstMerit Bank	\$174.3	5%	253	13%
<b>28</b> 26	ICBA Bancard	\$940.6	-15%	1,481	-19%	78	80	Mission FCU	\$171.0	6%	108	10%
<b>29</b> 32	BECU	\$909.5	10%	362	11%	79	74	Simmons Bank	\$169.2	-1%	187	1%
<b>30</b> 30	KeyBank	\$902.9	7%	492	2%	80	82	Wright-Patt CU	\$168.5	13%	107	4%
<b>31</b> 31	HSBC	\$830.6	0%	294	-2%	81	85	Police & Fire FCU	\$160.5	9%	150	5%
<b>32</b> 34	Golden 1 CU	\$642.4	11%	276	14%	82	89	Alliant CU	\$159.5	20%	82	15%
<b>33</b> 33	BBVA Compass SchoolsFirst FCU	\$634.7	-8%	583	0%	83	84		\$153.6	4%	67	39%
<b>34</b> 30 <b>35</b> 39	State Employ. CU (N.C.	\$612.6 .) \$610.0	8% 19%	365 460	21% 8%	84 85	83 86	Wescom CU United Nations FC	\$149.7 U \$147.4	1% 1%	82 57	9% 36%
<b>36</b> 35	PSECU	\$609.7	7%	400 202	-16%	86	90	Comerica Bank	\$146.4	10%	220	50 % 52%
<b>37</b> 37	Suncoast CU	\$553.1	-1%	363	4%	87	88	Univ. of Wisconsi		7%	106	4%
<b>38</b> 40	M&T Bank	\$535.3	11%	563	14%	88		AA CU	\$143.6	5%	75	9%
<b>39</b> 38	1st Financial Bank	\$516.0	-4%	340	1%	89	93	Whitney/Hancock		10%	80	7%
<b>40</b> 41	America First CU	\$475.0	9%	289	10%	90	102	OnPoint Comm. C	J \$135.2	16%	81	11%
<b>41</b> 42	DCU (Digital FCU)	\$444.5	7%	283	9%	91	91	San Diego County	CU \$135.1	3%	98	4%
<b>42</b> 44	First Citizens	\$432.6	10%	415	5%	92	109		\$133.9	19%	57	17%
<b>43</b> 43	UMB	\$404.3	2%	437	4%	93		Aberdeen Prov. G		5%	43	2%
<b>44</b> 47	Zions Bancorporation		9%	382	2%		112			19%	68	6%
<b>45</b> 65	Huntington Bancshare		81%	238	44%	95	92	· · · ·		4% 15%	72	4%
<b>46</b> 45	First Hawaiian	\$342.7	-1%	230	-1%			Redwood CU	\$132.4	15%	49	21%
<b>47</b> 48 <b>48</b> 50	VyStar CU Randolph Brooks FCU	\$327.9 \$326.5	4% 8%	195 144	12% 31%	97 98	96 99	Tower FCU TDECU	\$130.1 \$129.8	3% 5%	70 74	9% 19%
<b>40</b> 50	Virginia CU	\$320.5	5%	119	12%	99		Arizona FCU	\$125.8	0%	42	3%
<b>49</b> 49 <b>50</b> 46	First Niagara Bank	\$318.8	-5%	335	0%			Tinker FCU	\$125.2	0 % 7%	42 95	3 % 7%
	ine 30, 2016 vs. June 30, 2								÷		The Nilson	
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## **Volume Midyear 2016** U.S. Visa/Mastercard Credit Card Issuers

<b>Rank</b> '16 '15	lssuer	Total Vol. (mil.)	Chg.	Purchase Vol. (mil.)	Chg.		<b>nk</b> ′15	lssuer	Total Vol. (mil.)	Chg.	Purchase Vol. (mil.)	Cha
1 1	JPMorgan Chase	\$291,850.0	9%	\$279,210.0	9%		56	City National Bank (Cali		36%	\$516.6	36%
<b>2</b> 2	Bank of America	\$156,077.7	7%	\$146,698.6	7%	52	53	Golden 1 CU	\$496.2	17%	\$448.1	21%
<b>3</b> 3	Citibank	\$120,368.8	14%	\$119,400.0	14%	53		Huntington Bancshares		36%	\$471.2	
<b>4</b> 4	Capital One	\$117,832.0	18%	\$113,267.0	18%	54		First Niagara Bank	\$459.0	-6%	\$440.4	
<b>5</b> 6	U.S. Bank	\$59,414.6	11%	\$57,094.6	11%	55		Suncoast CU	\$429.9	11%	\$371.9	8%
<b>6</b> 5	Wells Fargo	\$58,931.3	9%	\$55,440.5	9%	56		First Tech FCU	\$424.8	9%	\$383.5	8%
77 88	Barclays Synchrony Financial	\$35,952.3 \$22,546.2	7% 11%	\$33,794.8 \$22,447.1	7% 11%	57 58	59 58	Randolph Brooks FCU PSECU	\$348.4 \$346.9	7% 5%	\$303.3 \$268.1	3% 3%
<b>9</b> 9	USAA	\$19,183.1	6%	\$18,142.2	6%	59		Whitney/Hancock Bank		7%	\$339.9	7%
<b>10</b> 10	PNC Bank	\$15,449.3	11%	\$14,802.6	11%	60		BMW Bank	\$336.2	5%	\$319.4	1%
<b>11</b> 11	Comdata	\$12,963.6	5%	\$12,963.6	5%	61	62	First Arkansas B&T	\$328.8	4%	\$328.5	4%
<b>12</b> 12	Cabela's WFB	\$10,593.5	8%	\$10,564.8	8%	62	64	Santander Bank	\$323.9	12%	\$290.9	13%
<b>13</b> 13	WEX	\$9,228.6	14%	\$9,228.6	14%	63	63	VyStar CU	\$320.0	5%	\$301.7	6%
<b>14</b> 14	Navy FCU	\$8,348.5	14%	\$7,568.4	15%	64		RBC Bank (Georgia)	\$319.5	13%	\$317.2	13%
<b>15</b> 19	TD Bank	\$7,864.9	87%	\$7,814.8	89%	65		Mich. State Univ. FCU	\$314.0	10%	\$256.1	11%
<b>16</b> 15	First Nat'l of Omaha	\$7,806.0	11%	\$7,376.5	11%	66		Delta Community CU	\$309.4	8%	\$286.1	7%
<b>17</b> 18 <b>18</b> 16	SunTrust Bank Fifth Third	\$5,624.6 \$5,511.9	19% 3%	\$5,446.2 \$5,353.9	18% 4%	67 68		FirstMerit Bank Baxter CU	\$299.6 \$290.3	14% 10%	\$279.6 \$279.7	17% 10%
<b>19</b> 23	Alliance Data	\$5,155.5	71%	\$5,146.9	71%	69	68	Mountain America CU	\$289.7	3%	\$282.0	3%
<b>20</b> 21	BB&T	\$4,440.0	10%	\$4,328.3	11%	70		Alaska USA FCU	\$266.8	5%	\$258.4	6%
<b>21</b> 20	Commerce Bank	\$4,285.4	2%	\$4,177.8	2%	71	71	FirstBank (Colorado)	\$266.3	4%	\$265.7	4%
<b>22</b> 17	BMO Harris	\$4,195.7	-15%	\$4,171.7	-15%	72	73	Univ. of Wisconsin CU	\$265.0	6%	\$255.1	6%
<b>23</b> 27	Credit One	\$3,000.6	30%	\$2,946.3	30%	73	77	San Diego County CU	\$250.1	8%	\$229.4	9%
<b>24</b> 25	<b>Regions Financial</b>	\$2,927.7	9%	\$2,891.8	9%	74	79	IberiaBank	\$247.9	12%	\$246.9	12%
<b>25</b> 24	ICBA Bancard	\$2,724.7	-5%	\$2,696.1	-5%	75		1st Financial Bank	\$245.8	3%	\$241.3	3%
<b>26</b> 26	Citizens Bank	\$2,578.3	5%	\$2,446.5	6%	76		Redstone FCU	\$241.8	-3%	\$238.6	
<ul><li>27 29</li><li>28 28</li></ul>	UMB HSBC	\$2,205.2 \$2,172.7	10% 2%	\$2,200.5 \$2,104.8	10% 1%	77 78	76 82	Simmons Bank United Nations FCU	\$239.5 \$210.3	1% 4%	\$234.0 \$179.9	1% 4%
<b>20</b> 20 <b>29</b> 30	State Farm Bank	\$2,172.7	-1%	\$2,104.0	-3%	79		Security Service FCU	\$208.3	18%	\$175.5	18%
<b>30</b> 31	Pentagon FCU	\$1,748.0	7%	\$1,613.0	7%	80		BancorpSouth	\$207.6	2%	\$200.8	2%
<b>31</b> 32	Comerica Bank	\$1,609.8	20%	\$1,604.7	20%	81	81	Patelco CU	\$207.3	2%	\$191.6	2%
<b>32</b> 33	Zions Bancorporation	\$1,553.0	17%	\$1,538.3	17%	82	83	Wash. State Employ. CU	\$205.2	6%	\$203.3	6%
<b>33</b> 36	Merrick Bank	\$1,542.4	30%	\$1,439.0	29%	83	87	<b>TMG Financial Services</b>	s <b>\$202.6</b>	17%	\$201.5	18%
<b>34</b> 35	M&T Bank	\$1,416.2	13%	\$1,383.5	12%		84		\$190.1	5%	\$179.8	5%
<b>35</b> 34	BBVA Compass	\$1,254.3	-3%	\$757.0				Members 1st FCU	\$186.1	12%	\$166.5	
<ul><li>36 38</li><li>37 39</li></ul>	KeyBank BECU	\$1,121.8 \$1,092.2	12% 14%	\$1,107.7	12%		86	Empower FCU	\$183.7	6%	\$174.9	6% 9%
<b>38</b> 37	First Hawaiian	\$1,092.2	5%	\$1,023.0 \$1,079.3	5%	87 88		Virginia CU Tower FCU	\$167.6 \$161.1	6% 5%	\$141.3 \$158.7	9% 5%
<b>39</b> 42	Premier Bankcard	\$984.4	12%	\$949.4	11%	89		Mission FCU	\$156.4	8%	\$129.9	8%
<b>40</b> 40	Bank of the West	\$958.1	4%	\$953.2	4%	90		Wescom CU	\$154.3	3%	\$149.9	3%
<b>41</b> 41	First Citizens	\$949.8	7%	\$939.8	7%	91	102	Redwood CU	\$147.9	24%	\$144.4	24%
<b>42</b> 44	TIB	\$915.0	8%	\$911.3	8%	92	94	<b>Citizens Equity First CU</b>	\$146.7	3%	\$142.5	3%
<b>43</b> 43	UBS Bank	\$914.1	6%	\$908.8	6%		95	Central Bank	\$146.6	5%	\$144.4	5%
<b>44</b> 45	First Tennessee	\$721.2	1%	\$543.2	5%			Alliant CU	\$146.2	18%	\$145.2	
<b>45</b> 46	America First CU	\$715.7 ¢E00.0	16%	\$555.5	11%		96	Police & Fire FCU	\$138.9 \$127.9	3%	\$131.4	3%
<ul><li>46 48</li><li>47 49</li></ul>	DCU (Digital FCU) State Employ. CU (N.C.	\$588.8 .) \$575.8	9% 10%	\$491.1 \$505.8	10% 12%			NASA FCU Wright-Patt CU	\$137.8 \$134.7	22% 5%	\$101.3 \$127.0	29% 6%
<b>47</b> 49 <b>48</b> 50	Arvest Bank	\$57.8 \$557.9	10%	\$505.8 \$551.7	12%			Affinity Plus FCU	\$134.7 \$131.3	5% 7%	\$127.0 \$122.2	6% 8%
<b>49</b> 52	SchoolsFirst FCU	\$539.3	11%	\$493.3	13%			AA CU	\$130.4	7%	\$121.9	7%
<b>50</b> 47	Synovus Bank	\$536.9	-5%	\$534.3				Logix FCU	\$127.2	13%		
	nonths of 2016 vs. first 6 m										The Nilson R	

## Total Chip Card Shipments

Ranl	Manufacturer/Headquarters	Mil.
		,664.6
2	Oberthur Technologies (OT) France 1	,189.5
	Giesecke & Devrient (G&D) Germany	997.1
	Safran (was Morpho) Germany	820.9
	Watchdata System China/Singapore	569.2
	Beautiful Card Taiwan	389.2
	Valid Brazil, United States	238.5
	Jing King Tech Holdings Hong Kong	226.1
9	Goldpac China Asia Credit Card Production China	210.1
-	XH Smartcard Co. China	190.0 180.4
	Exceet Card Group Germany	170.2
	CPI Card Group United States	165.8
	DZ Card Thailand	103.0
	China Card Smart Card (China Card Group) China	
	HID Global United States	96.0
17	IntelCav Brazil	72.0
18	Inkript Lebanon	69.4
19	NovaCard Russia	67.5
	Toppan Printing Japan	55.1
	Takcere Credit Card Manufacturing China	50.2
	FutureCard United Arab Emirates	50.1
	Alioth Russia	45.3
	ASK France	45.0
	Austria Card Austria	43.9
	PGP Group Hong Kong	42.5
	Workz United Arab Emirates PAV Card Germany	37.9 32.0
	Perfect Plastic Printing United States	31.6
	Plastkart Turkey	29.0
	Abnote United States	26.7
	ICK South Korea	26.3
33	Rosan Finance Russia	25.7
34	Toshiba Japan	22.2
35	Kyodo Printing Japan	20.9
36	Tag Systems Andorra	20.7
37	MK Smart Vietnam	18.1
38	MCT Cards & Technology India	17.6
39	671	16.9
40	<b>0</b> , 5	16.0
41	Placard Australia	15.8 15.0
42	Plastek Cards United States Taiwan Name Plate (TNP) Taiwan	15.0 12.3
43 44	FoongTone Technology Taiwan	12.3 11.0
45	Hogier Gartner & Cia Colombia	10.8
46	Toppan Forms Card Technologies Hong Kong	8.4
47	Swiss Post Solutions Germany	7.4
48	ImCARD El Salvador	6.1
49	Imprensa Nac'I-Casa da Moeda (INCM) Portug	al <b>5.5</b>
50	Siepmann's Card Systems India	4.6
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	Payment Cards	1	4	CPI Card Group	151.8
Ran	k Manufacturer	Mil.	5	Safran	129.5
1	Gemalto	935.0	6	Valid	115.4
2	ОТ	538.0	7	IntelCav	64.0
3	G&D	406.8	8	Jing King Tech	59.8
4	Goldpac	207.8	9	Alioth	41.0
5	CPI Card Group	158.1	10	NovaCard	31.4
		153.0	11	Goldpac	28.3
7	Valid	115.4	12	ICK	23.4
8	Jing King Tech	95.1	13	Toppan Printing	22.3
9	IntelCav	64.0	14	Rosan Finance	22.0
10	Takcere	50.2	15	Watchdata	20.8
11	Alioth	45.3	16	MCT Cards & Tech.	17.6
12	Exceet Card Group	40.7	17	DZ Card	16.7
13	Austria Card	38.3	18	FutureCard	15.0
14	NovaCard	34.6	19	Austria Card	14.8
15	Toppan Printing	33.0	20	Masria Card	13.0
	Perfect Plastic	31.6	21	Hogier Gartner	10.8
17	Watchdata	26.7		Tag Systems	10.0
18	ICK	25.9		Exceet Card Group	8.7
19	Rosan Finance	24.1		Toppan Forms	7.1
20	FutureCard	20.5		Inkript	6.0
21	Asia Credit Card	20.0		FoongTone Tech.	3.7
22	DZ Card	19.7		Beautiful Card	2.6
23	Tag Systems	19.7		Takcere	1.8
	MCT Cards & Tech.	17.6		Swiss Post Solution	s 1.7
25	Plastkart	17.0		Kyodo Printing	0.9
26	Masria Card	15.6		Placard	0.7
27	Abnote	14.2		Abnote	0.6
28	Kyodo Printing	11.5	33	Taiwan Name Plate	0.2
	Hogier Gartner	10.8	34	INCM	0.1
	Thames Card Tech.	10.1		Dual-Interface Car	ds
31	Toppan Forms	7.6	1	Gemalto	372.0
	FoongTone Tech.	7.2	2	G&D	181.0
	Taiwan Name Plate	6.5	3	Goldpac	175.7
34	Inkript	6.5		ОТ .	117.9
	Swiss Post Solutions	4.8	5	Jing King Tech	35.3
36	Placard	4.7		Austria Card	22.6
37	Beautiful Card	3.7	7	Safran	20.0
38	PGP Group	1.8	8	Abnote	13.6
39	China Card Smart Car	r <b>d</b> 0.7	9	Plastkart	12.0
40	MK Smart	0.4	10	Exceet Card Group	11.5
41	INCM	0.1	11	Tag Systems	9.7
42	XH Smartcard	0.1	12	Thames Card Tech.	6.7
	yment Cards include Visa,		13	Taiwan Name Plate	6.3
	stercard, Maestro, Americ ress, JCB, Diners Club, Un		14	Watchdata	5.9
	cover, debit, ATM, store, a		15	Toppan Printing	4.7
	npany cards.			Alioth	4.3
	Microprocessor Ca	rds	17	Placard	4.0
1		555.0	18	FutureCard	3.5
2		418.6	19	FoongTone Tech.	3.5
		218.5		NovaCard	3.2

### **Shipments by Category and Type of Card** 2015

21	<b>Swiss Post Solutions</b>	3.1	SIM Telephone Cards
22	DZ Card	2.5	- Microprocessor Cards
23	Masria Card	2.5	Rank Manufacturer N
24	ICK	2.3	1 Gemalto 1,57
25	Rosan Finance	2.1	2 <b>Safran</b> 60
26	CPI Card Group	2.0	3 <b>OT</b> 53
27	Takcere	1.6	4 <b>G&amp;D</b> 51
28	China Card Group	0.3	5 Watchdata 49
	Beautiful Card	0.3	6 Beautiful Card 38
	XH Smartcard	0.1	7 XH Smartcard 18
31	Kyodo Printing	<0.1	8 Asia Credit Card 15
	Contactless Cards		9 <b>Valid</b> 12
-	Takcere	27.8	10 Jing King Tech 10
	Asia Credit Card	20.0	11 <b>DZ Card</b> 8
	Exceet Card Group	16.8	12 Inkript 5
	Kyodo Printing	10.6	13 <b>Workz</b> 3
	G&D	7.3	14 NovaCard 3
	Toppan Printing	6.1	15 <b>MK Smart</b> 1
	CPI Card Group	4.3	16 FutureCard 1
	Safran	3.5	17 ImCARD
	Goldpac	3.2	18 Toshiba
	Gemalto	2.0	18 Exceet Card Group
	PGP Group	1.3	19 Takcere <
	OT	1.0	Transport/Ticketing Car
	Austria Card	0.9	Contactless Cards
	Beautiful Card	0.8	Rank Manufacturer N
	Toppan Forms	0.5	1 Gemalto 4
	DZ Card	0.5	2 China Card Group 4
	FutureCard	0.5	3 <b>ASK</b> 4
	Inkript	0.5	4 Watchdata 2
	China Card Group Perfect Plastic	0.3	5 <b>G&amp;D</b> 2 6 <b>OT</b> 1
	ICK	0.2	
	Rosan Finance	<0.1 <0.1	7 Placard 8 Abnote
	MCT Cards & Tech.	< 0.1	9 FutureCard
	NovaCard	< 0.1	10 Plastkart
24	Memory Cards	<b>VU.1</b>	11 PGP Group
1	Perfect Plastic	31.4	12 Siepmann's
	Takcere	19.0	13 Toppan Printing
	Gemalto	6.0	
	Plastkart	5.0	14 Safran 15 Swiss Post Solutions
	Exceet Card Group	3.7	16 DZ Card
	Thames Card Tech.	3.4	17 Asia Credit Card
	FutureCard	1.5	18 Goldpac
-	PGP Group	0.6	19 Masria Card
	Goldpac	0.6	20 FoongTone Tech.
	OT	0.5	21 NovaCard
	MK Smart	0.4	22 Rosan Finance
	Masria Card	<0.1	23 ICK
	Taiwan Name Plate	<0.1	24 XH Smartcard
			25 Toppan Forms

**10** VISIT US ONLINE AT WWW.NILSONREPORT.COM

s	Microprocessor Ca	rds	16 <b>A</b>
s	1 China Card Group	8.2	17 <b>T</b>
Mil.	2 Toshiba	7.4	18 <b>T</b>
77.0	3 FutureCard	0.5	19 <b>F</b>
04.5	4 Toppan Printing	0.2	Less
34.0	5 <b>ICK</b>	<0.1	Plate Gold
15.0	Dual-Interface/Memory	Cards	Finar
94.3	1 G&D (memory)	7.3	
83.8	2 <b>ASK</b>	4.0	1 0
80.0	3 <b>OT</b>	2.0	2 <b>G</b>
56.0	4 Gemalto	2.0	3 <b>S</b>
23.1	5 PGP Group (memory)	1.9	4 <b>G</b>
05.5	6 Safran	1.4	5 <b>J</b>
80.0	7 FoongTone Tech.	1.1	6 V
58.5	8 Plastkart	1.0	7 <b>T</b>
37.9	9 Rosan Finance	0.9	8 <b>P</b>
31.4	10 NovaCard	0.6	9 <b>T</b>
16.5	11 Toppan Printing	0.5	10 <b>A</b>
12.0	12 FutureCard	0.1	11
6.1	13 Goldpac	<0.1	12 E
3.6	Prepaid/Gift Card		13 K
3.0	Any Chip Type		14 <b>F</b>
<0.1	Rank Manufacturer	Mil.	15 N
rds	1 Exceet Card Group	31.5	16 <b>T</b>
	2 Plastek Cards	15.0	17 B
Mil.	3 FutureCard	1.5	18 <b>T</b>
46.6	4 FoongTone Tech	1.5	Less
46.2	5 Alioth	<0.1	Print
41.0	Prepaid Phone Ca		Rosa Foon
29.0	Memory Cards		TOON
21.6	Rank Manufacturer	Mil.	1 E
15.0	1 Plastkart	6.0	2 P
9.5	2 FutureCard	4.0	3 <b>T</b>
7.0	3 Inkript	4.0	4 <b>A</b>
6.5	Nonpayment Card		5 <b>P</b>
5.0	Contactless Cards		6 <b>F</b>
5.0	Rank Manufacturer	Mil.	7 G
4.6	1 HID Global	96.0	8 K
4.1	2 Gemalto	46.4	9 <b>G</b>
3.8	3 China Card Group	42.6	
2.3	4 Exceet Card Group	30.5	1 E
2.0	5 PGP Group	29.7	2 <b>G</b>
2.0	6 <b>G&amp;D</b>	21.4	30
1.9	7 Safran	20.3	4 J
1.3	8 Toppan Printing	12.7	5 <b>T</b>
0.9	9 PAV Card	12.6	6 V
0.9	10 Asia Credit Card	12.0	7 P
0.5	11 OT	9.0	8 G
0.3	12 CPI Card Group	7.4	9 5
0.3	13 Kyodo Printing	4.6	Less
0.2	14 Placard	1.7	Print
	15 Beautiful Card	1.1	

16	Abnote	1.0
17	Toshiba	0.7
	Toppan Forms	0.5
	FutureCard	0.5
Les	ss than 0.5 mil: Taiwan Nar te, Swiss Post Solutions,	ne
Go	Idpac, FoongTone, INCM, F	losan
Fin	ance, Masria Card, Tag Sys	stems.
	Microprocessor Car	ds
1	ОТ	84.0
2	Gemalto	42.1
3	Safran	36.4
4	G&D	22.0
5	Jing King Tech	21.0
6	Watchdata	16.2
7	Toshiba	10.5
-	PAV Card	6.6
9	Thames Card Tech.	5.9
	Austria Card	5.6
	INCM	5.3
	Exceet Card Group	4.5
	Kyodo Printing	4.0
	FutureCard	3.5
	MK Smart	1.2
	Tag Systems	0.9
17		07
	Beautiful Card	0.7
18	Taiwan Name Plate	0.7
18 Les	<b>Taiwan Name Plate</b> ss than 0.5 mil: Toppan	0.6
<b>18</b> Les Prin	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Grou	<b>0.6</b>
<b>18</b> Les Prin	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gr ongTone, ICK, Goldpac.	<b>0.6</b>
<b>18</b> Les Prin Ros Foo	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gr ongTone, ICK, Goldpac. Memory Cards	<b>0.6</b> up, oup,
18 Les Prin Ros Foo	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ongTone, ICK, Goldpac. Memory Cards Exceet Card Group	0.6 up, oup, <b>15.0</b>
18 Prin Ros Foo 1	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ngTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card	0.6 up, oup, 15.0 12.8
18 Prii Ro: Foo 1 2 3	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate	0.6 up, oup, 15.0 12.8 4.8
18 Les Prin Ros Foo 1 2 3 4	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote	0.6 up, oup, 15.0 12.8 4.8 4.5
18 Prii Ro: Foo 1 2 3 4 5	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9
18 Prin Ros Foo 1 2 3 4 5 6	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0
18 Less Prii Ros Foo 1 2 3 4 5 6 7	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ngTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9
18 Prii Ro: Foo 1 2 3 4 5 6 7 8	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro nogTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7
18 Prii Ro: Foo 1 2 3 4 5 6 7 8	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Grous san Finance, China Card Grous Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1
18 Prii Ros Foo 1 2 3 4 5 6 7 8 9	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Grou san Finance, China Card Grou ongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1 s
18 Prii Ros Foo 1 2 3 4 5 6 7 8 9 9	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ngTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group	0.6 up, oup, 15.0 12.8 4.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1 s 45.0
18 Prin Ros Foo 1 2 3 4 5 6 7 8 9 9 1 2	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro nogTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group Gemalto	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1 s 45.0 15.5
18 Prii Ros Foo 1 2 3 4 5 6 7 8 9 9 1 2 3	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro mgTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group Gemalto OT	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1 s 45.0 15.5 7.5
18 Less Prin Ros Food 1 2 3 4 5 6 7 8 9 1 2 3 4 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 1 2 3 4 5 6 7 6 7 7 8 7 7 7 8 7 7 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Grous san Finance, China Card Group ongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group Gemalto OT Jing King Tech	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1 s 45.0 15.5 7.5 4.5
18 Less Prin Ros Food 1 2 3 4 5 6 7 8 9 9 1 2 3 4 5 5	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Grous san Finance, China Card Grous mongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group Gemalto OT Jing King Tech Toppan Printing	0.6 up, oup, 15.0 12.8 4.8 4.8 4.5 1.9 0.9 0.7 0.1 s 45.0 15.5 7.5 4.5 4.1
18 Less Prin Ros Foo 1 2 3 4 5 6 7 8 9 9 1 2 3 4 5 6 1 2 3 4 5 6	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Gro san Finance, China Card Gro ngTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group Gemalto OT Jing King Tech Toppan Printing Watchdata	0.6 up, oup, 15.0 12.8 4.8 4.5 1.9 1.0 0.9 0.7 0.1 s 45.0 15.5 7.5 4.5 4.1 3.0
18 Less Prin Ros Foo 1 2 3 4 5 6 7 8 9 9 1 2 3 4 5 6 7	Taiwan Name Plate ss than 0.5 mil: Toppan nting, Inkript, CPI Card Grous san Finance, China Card Grous mongTone, ICK, Goldpac. Memory Cards Exceet Card Group PAV Card Taiwan Name Plate Abnote PGP Group FutureCard G&D Kyodo Printing Goldpac Dual-Interface Card Exceet Card Group Gemalto OT Jing King Tech Toppan Printing	0.6 up, oup, 15.0 12.8 4.8 4.8 4.5 1.9 0.9 0.7 0.1 s 45.0 15.5 7.5 4.5 4.1

Less than 1 mil: Tag Systems, Kyodo
Printing, ICK, Goldpac, FoongTone.
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#### **Chip Card Manufacturers**

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ticketing, prepaid gift cards, prepaid phone cards, and nonpayment cards. (See charts on pages 10 and 11.)

Gemalto's share of all payment cards with chips shipped in 2015 was 27.27%, down from 27.93% in 2014. It manufactured 1.01 billion payment cards last year and 92.48% had chips, up from 82.84% in 2014.

OT (Oberthur Technologies) had a 15.69% share of payment cards shipped with chips, up from 13.94%. Of the

676.0 million payment cards OT shipped in 2015, 79.59% had chips, up from 67.40% the previous year.

Giesecke & Devrient (G&D) held a 11.86% share of payment cards with chips shipped last year, down from 13.83% in 2014. Chip cards accounted for 73.72% of the 551.8 million shipped, up from 72.19%.

Of Goldpac's 266.1 million payment cards, 78.09% included chips, up from 63.63%. Chip cards shipped

by CPI Card Group accounted for 33.10% of its 477.6 million payment cards, up from 19.06%.

Safran payment chip cards accounted for 72.93% of its 209.8 million payment cards, up from 70.44%. Payment chip cards produced by Valid accounted for 45.91% of the 251.4 million payment cards it shipped

last year, up from 11.58%. Of the 100.2 million payment cards Jing King shipped last year, chip cards accounted

for 94.92%, up from 89.25%. Of the 165.6 million payment cards Shenzhen Takcere shipped, 30.31% were chip cards, up from 15.81%. Of the 45.8 million payment cards from Alioth, 99.01% included chips, up from 82.11%. Chip cards produced by Austria Card accounted for 95.75% of the 40.0 million payment cards it shipped last year, up from 92.00%.

#### Mahindra Comviva's Mobiquity Money

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reader. The device links to the merchant's Airtel Money account. Tapping the card on a POS terminal initiates a debit of the consumer's account and a credit to the merchant's. The Airtel Money Rwanda NFC program works the same way.

In Zimbabwe, EcoCash is the name of a mobile payment and banking service with features that include international remittances, bill payments, person-to-person money transfers, savings and credit accounts, as well as NFCbased payments. There are 6 million people who use the service generating \$6.60 billion annually in transaction volume. This is equal to 47% of Zimbabwe's GDP. Instead of cards, NFC payments are facilitated by stickers affixed to phones. The debiting and crediting of funds works the same as in Tanzania. EcoCash has integrated with 10 banks in Zimbabwe, allowing consumers and merchants to receive money in their mobile account and transfer it to their bank account. Money can also be transferred in the other direction. EcoCash, through a partnership with prepaid card program manager Tutuka, offers a virtual Mastercard product for online purchases and a plastic Mastercard card, which is the first EMV chip & PIN program in Zimbabwe.

OT's 15.69% share of payment cards

with chips was up from 13.94%.

Outside Africa, Mobiquity Money deployments are in Guatemala, Honduras, El Salvador, India, Bangladesh, Jordan, Iraq, Afghanistan, Kyrgyzstan, France, and Romania.

Mahindra Comviva customers can choose the Capex model (purchase the technology for in-house management) or Onpex model (revenue sharing). Manoranjan Mohapatra is CEO at Mahindra Comviva Technologies, Ltd. in Gurgaon, Haryana, India, 91 (124) 481-9000, mao@mahindracomviva.com, www.mahindracomviva.com.

**David Robertson, Publisher** August 31, 2016 AR Ked. ts

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