

Why U.S. Credit-Card Security Has Been Stuck in 1999: QuickTake

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Credit Card Security Why the U.S. Is Several Swipes Behind By Elizabeth Dexheimer | Updated February 4, 2015 Americans were shocked when Target, the retail giant, said in December 2013 that hackers had stolen the credit card numbers of tens of millions of customers. People in much of the rest of the world might have been shocked, too, but for a different reason: The extent to which U.S. credit and debit cards still rely on outdated security technology. How long will the country that invented credit cards lag behind? Target's debacle has helped hasten the timetable for a switch to a more effective system that's already widely used in Europe and parts of Africa, Latin America and Asia. No one is expecting the changeover to be simple, however, especially in the highly competitive U.S. payments marketplace, where an array of banks

especially in the highly competitive U.S. payments marketplace, where an array of banks, payment networks and retailers are engaged in a continual struggle for advantage. And as the Target theft showed, no system is more secure than its weakest link. The Situation Source: 2012 consumer survey by Aite Group and ACI Worldwide The magnetic stripe on credit cards isn't going away anytime soon. The plan in the U.S. is to add embedded computer chips known as EMV that store customer data in a way that's harder to get at. Starting in October 2015, any bank that issues anything other than the new chip cards or any retailer who uses older technology will be liable for any fraud that occurs with them. At the end of 2014, only about a third of U.S. cash registers had been converted to EMV, a figure expected to rise to half by the end of 2015. Only about 10 percent of the nation's 1.2 billion credit and debit cards had the chip system. That compares with 82 percent of cards in most of Europe, 17 percent in Asia, 39 percent in Africa and 54 percent in a region covering Canada, Latin America and the Caribbean. The cost to banks and stores of just changing the plastic and hardware is estimated at up to \$11 billion. Meanwhile, a fight is brewing between banks and retailers over whether chip cards should require customers to enter a PIN or their signature. Using a PIN makes fraud less likely if cards are lost or stolen, but makes transactions slower — and gives consumers one more thing to forget. However hard and costly the changeover is, news of security breaches at banks and retailers, including JPMorgan Chase and Home Depot, is likely to keep the pressure on to keep moving. Source: 2012 consumer survey by Aite Group and ACI Worldwide The Background Source: FICO Credit cards were cardboard when Diners Club introduced them in 1950. Cards moved over to plastic in the 1960s. In the 70s magnetic stripes were added once standards were set for the customer and security data, which was embedded on the stripes the way music was encoded on eight-track tape. In 1999, three networks — EuroPay International, MasterCard and Visa — established the EMV standards for global use that included the option of chip technology. The chips communicate with a retail terminal to verify the card's authenticity when it's used, adding another layer of security. But since the chip generates a unique security code for each transaction, even if bad guys get your card, they wouldn't be able to clone the data to sell it — removing much of the incentive for theft or hacking. The chips caught on in Europe with the help of regulators who pushed for the new technology. The shift produced clear reductions in fraud involving the use of lost, stolen or counterfeit cards in stores. But in the U.S., for years companies considered it cheaper to deal with fraud on a case-by-case basis than to spend billions overhauling the system. That calculus was changed in a hurry by the store thefts, in which hackers gained access to check-out terminals and recorded data when the chip-less cards were swiped. Source: FICO The Argument Opinion from Wolves Close in on Target's Executives Target: Better Smart Than Sorry? Target Apologizes. Will It Change? Bloomberg View Homepage » The payments industry in the U.S. has relied far more on self-regulation than in Europe. That seemed like a good thing when American companies were pioneering the credit-card economy.

But in the wake of well-publicized breaches, President Barack Obama and some lawmakers have called for national standards for database security and requirements for notifying customers when breaches occur. Obama also ordered that government cards used for a variety of benefits including Social Security use chip cards — with pins. Mandates like that and fear of government regulation is part of the reason banks and merchants are speeding up adoption of chip technology. Yet even when chip cards become common in the U.S. — which could take years — the battle with hackers is bound to continue. In the wings, companies are working on new technologies for the mobile-payment market, which is expected to nearly triple, from \$52 billion in 2014 to about \$142 billion by 2019, as consumers start using new technologies like Apple Pay. They're developing new standards to make online and mobile payments safer and implementing swipecard smartphone transactions that will also depend on EMV chips. But that fight isn't just about security — retailers and tech companies are hoping to win more control over the payment process as customers shift from cash and plastic to mobile devices. Opinion from Wolves Close in on Target's Executives Target: Better Smart Than Sorry? Target Apologizes. Will It Change? Bloomberg View Homepage » On Twitter @gregoryblackett RT @MSFT4Work: Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 5:05 PM - 04 Feb 15 @KevinPetschow RT @HeartlandHPY: Heartland & @WeRRestaurants will tackle everything from #EMV to #NFC <http://t.co/ENYtvXoN3O> #SecurePayment <http://t.co/p1...> 5:00 PM - 04 Feb 15 @MasterCardNews #MasterCard selected as @FirstTechFed's payment solutions provider; will issue new #EMV cards for members <http://t.co/a7eNxI1XaI> 4:49 PM - 04 Feb 15 @lspe5029 RT @MSFT4Work: Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 4:44 PM - 04 Feb 15 @theSIDC RT @OT_TheMcompany: #EMV chip cards are on their way, but will terminals be ready? <http://t.co/ILOIz2pQiw> <http://t.co/t30o2GYkmr> 4:44 PM - 04 Feb 15 @ISMG_News #Visa on Unique #EMV Challenges in U.S. <http://t.co/FU5nVkSwhq> #infosec 4:40 PM - 04 Feb 15 @DEExhibitionist RT @MSFT4Work: Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 4:36 PM - 04 Feb 15 @BrianD063 RT @MSFT4Work: Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 4:33 PM - 04 Feb 15 @BTreYo RT @MSFT4Work: Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 4:30 PM - 04 Feb 15 @MSFT4Work Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 4:30 PM - 04 Feb 15 More Tweets Fewer Tweets The Reference Shelf Bloomberg Businessweek reconstructed the hack that led to the theft of credit card numbers from millions of customers of the U.S. retailer Target. The SmartCard Alliance put together this FAQ on the conversion to EMV. A report by the Aite Group on EMV conversion in the U.S. Roadmaps on EMV from Mastercard, Visa and American Express. The Nilson Report follows news in the payments industry. On Twitter @gregoryblackett RT @MSFT4Work: Destroy old credit cards! New #EMV cards are coming: <http://t.co/OrPLwP0oIp> #retail 5:05 PM - 04 Feb 15

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