

2007 EPRG Contactless

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Paul Connolly is First Vice President and Chief Operating Officer at the Federal Reserve Bank of Boston. As the Bank's second-in-command he has responsibility for the Bank's financial services, information technology, human resources, and support and administrative activities. For four years ending in 1998 Mr. Connolly served as National Retail Payments Product Director, a position with responsibility for the check, Automated Clearing House, and other retail payments activities at all Reserve Banks. From 1998 through the early part of 2000 he had responsibility for preparing the Reserve Banks' financial services and other systems for the "Y2K" event. Currently he serves on the Federal Reserve Financial Services Policy Committee, and has national responsibility for the Federal Reserve's financial management systems. In his 31 years with the Federal Reserve Bank, Mr. Connolly has served in a number of positions in the data processing, payments, planning, and economic research functions. Mr. Connolly received a bachelor's degree from Boston College and an M.B.A. from the Harvard Business School.

Marianne Crowe is a Vice President with the Federal Reserve Bank of Boston, responsible for the Emerging Payments Research Group, whose goal is to increase knowledge of emerging payment trends and issues, primarily related to consumer payment behavior, and Business Development and Customer Service for the First District. Her previous roles at the Fed included Assistant Vice President for the National Image Archive Services function and Assistant Vice President for the Boston Fed Check Services department, where she managed the operations and several Check initiatives, including Check Standardization and the Check 21 implementation for the image services. Prior to joining the Fed in 2001, Marianne worked for 19 years at BankBoston, serving in several project and operations management positions, primarily focused on technology strategy and development for check processing (ECP and Image) and managing bank consolidations for the check processing operation. She has a B.A. from Regis College and an M.B.A. from Babson College.

Jim Cunha is Senior Vice President of the Payments and Treasury Services (PaTS) Group. He is responsible for Check Processing, Business Development and ACH support, Wholesale Payment operations; two emerging payment businesses for the U.S. Treasury: Internet Payments Platform (IPP), and Stored Value Card (SVC); and the Emerging Payment Research Group, whose mission is to better understand consumer payment behavior and identify potential policy issues. In his 23 years with the Federal Reserve Bank, Jim has held senior positions in various departments that include Audit, IT Technical Support, the Retail Payment Office, Technology Strategy, and a special System assignment on "Y2K". Prior to joining the Federal Reserve Bank, he worked at the Fleet National Bank. Jim received bachelor degrees in accounting and philosophy from Northeastern University and computer science from Rhode Island College.

Kevin Fu is an Assistant Professor in the Department of Computer Science at the University of Massachusetts Amherst, and is the coordinator of the RFID Consortium on Security and Privacy (RFID CUSP). Kevin investigates the security and privacy of pervasive and invasive computation — including RFID, implantable medical devices, and file systems. Kevin's contributions include key regression for efficient decentralized access control of storage; the SFS read-only file system for fast integrity-protected content distribution; proxy re-encryption file systems for managing distributed access control; and the security analysis of RFID-enabled credit cards, Web authentication, and software updates. His research has appeared in distinguished news publications including *The New York Times* and the *Wall Street Journal*. Kevin received his M.Eng. and Ph.D. in Electrical Engineering and Computer Science at the Massachusetts Institute of Technology in 1999 and 2005 respectively, and his S.B. in Computer Science and Engineering from MIT in 1998.

Steve Frazzini serves as MTA New York City Transit's Chief Officer for AFC Program Management/MetroCard Operations where he has led a distinguished 20 year career. He was a key contributor in the development, implementation and management of New York City's successful MetroCard Program, which accounts for the sale of \$1.3 billion fare media annually with over 60 percent transactions via credit and debit cards. More recently, as Program Director for the MTA's contactless smartcard pilot on the Lexington Avenue Subway Line in New York City utilizing bank-issued credit and debit devices for payment directly at the fare gate, Steve has led his agency on strategic planning for the next generation of fare collection and payment processing strategies. Steve also currently serves as Steering Committee member for the NY-NJ Regional Strategic Alliance (MTA, Port Authority of NY&NJ, New Jersey Transit) charged with evaluating potential business opportunities, developing the business case, and offering recommendations for an open system of seamless transportation throughout the region. Prior to this career at the MTA New York City Transit, Steve held positions as Chief Fiscal Officer, NYC Department of Parks & Recreation, and as Chief Administrative Officer, Capital Programs, NYC Health & Hospitals Corporation. Steve holds a Master's degree in Public Administration from New York University.

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Jeffrey Fuhrer is an Executive Vice President and Director of Research at the Federal Reserve Bank of Boston. Mr. Fuhrer had been Vice President and Economist at the Bank and the head of the Open Economy Macro/International Section since 1995. Mr. Fuhrer served as an Economist at the Bank from 1992 to 1995. From 1985 to 1992, he was a Senior Economist at the Board of Governors of the Federal Reserve System in Washington, D.C. His recent research has focused on the development of macroeconomic models of inflation, long-term interest rates, monetary policy, consumer spending, and the Phillips curve. He has recently published studies on the importance of habit formation in consumer spending decisions, the persistence of inflation, the interaction between monetary policy and long-term interest rates, and the failure of new rational expectation models to explain business cycle fluctuations. Mr. Fuhrer holds an M.A. and a Ph.D. in economics from Harvard University and a B.A. from Princeton University.

Gregory Garback has served as the Executive Officer of the Department of Finance for the Washington Metropolitan Area Transit Authority (WMATA) for the past eight years. He also has over twelve years of design and construction management experience of the Metrorail system in the Washington region. Greg led the deployment of SmarTrip®, the Authority's contactless smart card used as a payment form for rail and bus system fares and parking lot fees. Launched in May 1999, SmarTrip® now has 1.8 million cards in the field. Currently, Greg is working with financial institutions to transition transit fare collection into an open merchant payment system. He serves as Chairman of the Board of Directors of Smart Card Alliance; performs peer reviews for the transit industry in the U.S. and abroad, assisting agencies in their planning and deployment phases of smart card based systems; serves on several committees within the American Public Transportation Association, on the federal government Inter-agency Advisory Board (IAB), and is co-chair of the Electronic Payment Systems task force for the I-95 Corridor Coalition.

Peter Ho is a Vice President and Product Manager at Wells Fargo Card Services. His primary responsibilities include exploring new technology opportunities in the consumer payments space where contactless payments is a current focus. He joined Wells Fargo in 2003 and has worked on a number of product initiatives since that time. With over 16 years experience in the Financial Services sector, Peter has held a number of different positions in both line and support areas. Before joining Wells Fargo Bank, he was an independent strategic consultant to financial services industry leaders such as Wells Fargo Bank and Egg. Peter also spent time at IBM Business Consulting Services in the e-business Strategy and Change channel and at Citibank's Global Consumer Bank where he was a Relationship Manager supporting Small Business Banking. Peter is a graduate of Occidental College in Los Angeles, CA with a B.A. in economics. He also holds an M.B.A. from the Tepper School of Business at Carnegie Mellon University in Pittsburgh, PA.

Paul Korczak is Assistant Chief Officer of MetroCard Sales Operations for the MTA New York City Transit (NYCT) in charge of all aspects of the \$2.0 billion in total sales of MetroCard fare media through vending machines, retail sales network and transit benefits. For the past 15 years, Paul has served as the lead manager for finance and planning in the development of the automated vending machines program, and was instrumental in the design and deployment that enabled first-time acceptance of bank payments at NYCT in an automated vending environment. Since 2003, Paul has been a member of the joint MTA, Port Authority, and New Jersey Committee, and he played a key role in the expansion of MetroCard acceptance to Port Authority's Air Train and to the PATH system. More recently, Paul was named Project Manager for the contactless smart card pilot on NYCT's Lexington Avenue Subway Line. This is the first pilot in the New York region that employs bank-issued contactless smart card devices linked to a customer's own credit or debit bank account to pay fare directly at the point of entry. Paul is also chair of the Smart Card Alliance's Transportation Council, and has co-authored several white papers on contactless payments.

Daniel Littman is a Senior Payments Research Consultant in the Federal Reserve Bank of Cleveland's Payments System Research group, which engages in applied research on payment methods and payment instruments in the U.S., with a particular focus on check, cash, and electronic payments. He previously served as Manager of Product Development in the Federal Reserve System's Retail Payments Office with responsibility for check clearing services, Check 21 and check-to-ACH conversion. Mr. Littman joined the Federal Reserve Bank of Cleveland in 1981 and has worked in marketing, budget/planning, credit and economic research. Prior to joining the Fed, Mr. Littman was employed by an economic development agency in Maine and served as a Consultant to the U.S. Department of Housing and Urban Development. He was awarded a Fulbright Scholarship in 1977, under which he worked as Advisor to the National Economic Planning Agency of Ecuador. Mr. Littman earned a Bachelor's degree in Latin American studies and sociology from Brandeis University and a Master's degree in economics from Boston University.

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Peter D. Nash serves as Director of Store Treasury Operations for CVS/pharmacy. His responsibilities include overseeing agreements, authorization and settlement for all forms of consumer payments at over 6,200 retail locations and three mail order facilities. CVS/pharmacy is committed to serving the healthcare needs of all customers by being the easiest pharmacy for customers to use, both in its stores and online. His general responsibilities include management of all bank depository accounts, check authorization/collections, private charge accounts as well as the MasterCard, VISA, American Express, Discover and PIN Debit relationships. Additional responsibilities include direction over several non-merchandise revenue initiatives such as ATMs, CoinStar, Lottery and Money Orders/Grams. Mr. Nash received a Bachelor of Arts degree from Framingham State College.

Nasreen Quibria is a Payments Industry Specialist in the Federal Reserve Bank of Boston's Emerging Payments Research Group (EPRG). In the EPRG, she specializes in research and analysis on emerging payments and technologies with a focus on contactless or Near Field Communication (NFC) technology. Prior to the Fed, she was Director of Product Development and Management at Eliza Corporation, a speech recognition company. At Eliza she played a pivotal role in helping transform the research and development start-up company to a profitable business. During her tenure at Eliza Corporation, she became the co-inventor of two patents in artificial intelligence focused on user adaptive behavior. She also has previous experience in financial services and risk management. She holds a B.A. in economics from Wellesley College and an M.B.A. from the Carroll School of Management at Boston College.

Faye Surette has been with MasterCard Worldwide in the U.S. Commerce Development group for the past year. Faye provides support within the Public Sector industry including transportation, DMV, courts and tolls. She works closely with acquirers, issuers, merchants and service/technology providers to formulate strategies and implement programs that increase card acceptance within these Public Sector categories. Prior to joining MasterCard Worldwide in April of 2006, she worked within the acquiring community for 16 years. Most recently Faye worked for 10 years at First Data Merchant Services where she held positions in national sales and relationship management, national merchants' business development, portfolio management, technical account implementation, product development, and merchant training.

Brian Triplett serves as Senior Vice President of Emerging Product Development for Visa USA. Building off deep roots in the payments industry, Mr. Triplett has more than ten years of experience developing electronic payment products, managing commercial industry alliances and establishing payment platforms for B2B e-commerce, smart cards, pre-paid products and contactless cards. Mr. Triplett, who has been with Visa since 2000, initially led Visa's Commercial Solutions team. After that, he led the Public Sector team responsible for federal, state, local and higher education card programs, as well as Visa's Core Processing Solutions team. In this capacity, he developed strategic direction for access, authorization, clearing and settlement platforms. Mr. Triplett also has managed key commercial industry alliances that focused on integrating payment functionality into core business platforms, including ERP systems. Mr. Triplett holds a Master's of Business Administration from Brigham Young University's Marriott School of Management.

David Tryder is Manager of Interactive & Relationship Marketing for Dunkin' Donuts. His responsibilities include digital marketing, electronic payment programs, and CRM. Prior to joining Dunkin' Donuts in 2005, David served as Vice President and Director of Marketing at Digitas responsible for lifecycle marketing strategy and execution for the SkyMiles frequent flyer program at Delta Airlines. Previously he also worked as ATM & Online Banking Product Manager at BankBoston and Branch Manager and Call Center Manager of Retail Banking at BayBank. David received his B.S. from the University of New Hampshire and has an M.B.A. from Babson College.

Randy Vanderhoof is the Executive Director of the Smart Card Alliance, a not-for-profit, multi-industry association of over 160 member firms working to accelerate the widespread acceptance of smart card technology in North America and Latin America. He joined the Alliance in early 2002 serving as the interim Director until he was named Executive Director in August. Randy also served on the Executive Board for the Alliance as a corporate member from 1998-2001. Prior to joining the Smart Card Alliance, he was Senior Project Manager and Solutions Sales Manager for IBM Global Smart Card Solutions; an international product group supporting IBM's smart card services to its global banking, healthcare, and government industry vertical teams. From 2000 to 2001, Randy was Vice President of Business Development with First Access, Inc., a developer of contactless smart card technology for network access security and authentication. From 1995-2000, he worked at Schlumberger (now Gemalto) as Market Segment Manager, Campus Solutions supporting the development and marketing of smart card-based identification and payment systems. Randy is a graduate of Saint Joseph's University of Philadelphia, PA with a B.S. in management marketing. He received his M.B.A. from Rider University in Lawrenceville, NJ.

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Karen Webster is the President of Market Platform Dynamics (MPD) and responsible for the firm's overall strategy and client development initiatives. She works with clients on market strategies and product development and positioning, including solutions that stimulate adoption of new products and services. She also serves as an advisor and member of the board for several companies operating in the payment and technology industries. Karen has a long history of consulting experience, having served as the Managing Director of Global Marketing and Planning for PricewaterhouseCoopers' U.S. \$6 billion management consulting practice. While there, she also led the firm's eBusiness Strategic Marketing taskforce and created the strategic positioning and go-to-market approach for this firm-wide initiative. Karen later served as Chief Operating Officer for a U.S. \$125 million consulting subsidiary that is part of the MMC family of companies. In 2002, Karen launched her own B2B strategic marketing consultancy which later combined with MPD. Karen is the author of numerous articles on marketing strategy and competitive positioning, including a report on the payment habits and preferences of Generations X and Y. Karen also served as an adjunct faculty member at her alma mater, Johns Hopkins University, where she developed and taught graduate level courses on business-to-business marketing.