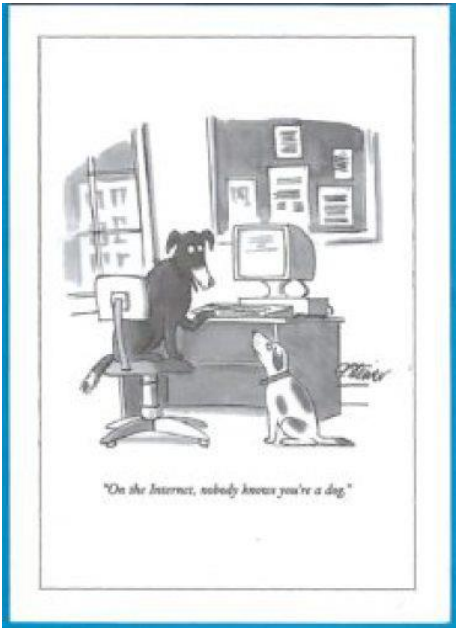




pa
philip andreae
and associates

Atlanta, GA • 404.680.9640 • Philip@andreae.com • www.andreae.com



Philip Andreae helps clients understand and capitalize on the critical opportunities in Payments, Identity, Authentication and Governance. Someone who has worked with an array of financial technologies—security solutions, the application of smart cards, the development of international standards and cryptography—Philip enables organizations to monetize and optimize what consumers do with FIDO, Mobile Wallets and Payments, and with objects in the vast Internet of Things. He counsels clients on digital identity, transaction processing, digital security; namely the global transformation of trust in the physical realm to trust in the digital realm. Philip develops strategies that are realistic and cost-effective, that leverage existing systems, and that account for human elements while utilizing the newest, most advanced technologies.

Future Shock – noun – A concept coined by Alvin and Heidi Toffler to describe a state of distress or disorientation due to rapid social or technological change.

The “Future” is now the present. Businesses and consumers are certainly distressed and disoriented. Computers that were once the size of buildings are now small enough to sit inside a watch, a card, your mobile phone, car or any other object we surround ourselves with. We feel lost and alone when we are not digitally connected. We are at risk as a result of the devices and complexity of the electronics that surrounds us.

Growth is Everywhere: Rapid technology advances are impacting every aspect of the present, including politics, law, work, social behaviors, education, healthcare and commerce. Governments and corporations struggle to benefit from these electronic miracles while simultaneously attempting to regulate and police them. The constants are: (1) change, and (2) that every time we solve a problem, a new challenge takes its place.

Growth is Risky: Cyber Criminals benefit from the newest technologies, unbound by the ethical considerations that are meant to protect sensitive information. While banks and retailers debate whether it’s predatory to use personal information to market to consumers, hackers have no qualms about stealing the data in question: to sell for profit, to settle ideological scores with businesses or governments, or to achieve bragging rights, i.e., “I hacked it because it could be hacked.” A company’s approach to digital identity and data security is a key point any prospective customer must address as the fourth industrial revolution overtakes and enhances so much of our lives.

There is massive potential for those who can harness growth and change while minimizing exposure: Today’s breakthrough technologies will be used to continue building new solutions for every aspect of our lives. Today we shop from our phones, tablets and laptop. We bank from our phones. We socialize on a platform alongside a billion concurrent users. Each of these areas is an opportunity for those companies that learn how to leverage these technologies focused on creating revenue generating activities. Those who will succeed, must also address the concerns about privacy, identity, sovereignty and societal norms.

This is only the beginning. There was no such thing as an iPhone until 2007. By 2019, the number of mobile phone users in the world is predicted to surpass the five billion mark. And the mobile phone is only one step toward a more connected future. The Internet of Things (IoT)—which refers to the integration of phones, traffic lights and other physical devices, vehicles, home appliances and anything else that can be connected and can exchange data—is expected to grow to a \$7 **Trillion** market by 2020, with an estimated **30 billion** interconnected devices meant to deliver economic and efficiency benefits for us all.

Design the present as the past of the future.

World-changing technology requires new strategies and security approaches. However, with the breakneck pace of invention, companies face three challenges:

1. Staying ahead of their competitors in emerging areas such as Mobile Payments, IoT, Smart Cards and other technologies that are transforming the physical world into the digital future.
2. Developing cooperative approaches to identification and authentication to ensure trust in the digital identity of new clients, citizens and users as they engage and interact with this connected world of websites, objects, people and things.
3. Designing compelling user experiences, focused on engendering loyalty, driving revenue and offering a rewarding user experience.

Philip Andreae has worked on the leading edge of Fintech and payments security for 40 years. His experience encompasses the technologies used to drive international securities trading to the emerging Cryptocurrency / Blockchain enabled use cases. His experience is reality based, drawn from hundreds of projects—as a management consultant with Accenture and as the Principal of Philip Andreae and Associates, to his employment with such organizations as VISA, Europay, Shearson Lehman Brothers, American Express and most recently as Vice President and subject matter expert for French based security leader Oberthur Technologies (IDEMIA). Philip is active in many key payments and Fintech organizations including the FIDO Alliance, where he was a Board Member and the Secretary.

Philip’s extensive application of solutions to Fintech and security challenges plus his historical understanding of the field’s evolution allows him to present clients with innovative options designed to address the future and enhance profitability.

Philip Andreae is the founder and Principal Consultant of Philip Andreae & Associates, formed in 1984 and specializing in the evaluation, design, planning and implementation of emerging technologies aligned with long-term business objectives.

Subject matter expert (SME) with more than 30 years of global experience in Financial Services and Related Technologies, Electronic Payments, Transaction Processing, Authorization-Clearing-Settlement, Secure Commerce, FIDO and smart cards. Given the need to address the challenges of tomorrow Philip is adept at such areas as the FIDO standards, Digital Identity, Authentication, Credit and Debit Card processing, Point of Sale (POS) systems, ACH, EMV, NFC, Internet of Things (IoT), Mobile Payments, eCommerce and the latest array of crypto-currencies..

Clients benefit from Philip's accessibility and ability to provide realistic, cost-conscious approaches to complex challenges. Philip's range of experience—from groundbreaking international trading systems developed at Shearson Lehman Hutton to current Blockchain and Cryptocurrency applications—enable clients to access the ramifications of each action from Philip's historical perspective gained from creating the foundational technologies of most modern, secure transactional platforms.

Consulting assignments include Payments, Financial Technology, Smart Card/EMV projects, Corporate Training, Sales Support, System Architecture, Product Development, Vendor Selection, Business Development, On-Call Advisory Services, Interim Executive Roles, Market Analyses, Technology Roadmaps, and Business Planning

Member of the Board and Secretary of the FIDO Alliance, established in 2013 to develop standards and specifications across a wide range of authentication devices that will ultimately replace passwords and counts American Express, Google, PayPal, Nok Nok Labs, Samsung Electronics, NXP Semiconductors and VISA among its members.

Ongoing Industry activity includes participation in the National Institute of Standards and Technology (NIST), The International Organization for Standardization (ISO), and the European Committee for Standardization (CEN), as well as regular speaking engagements at premier industry events such as Money 2020, EPCOR, USFS Payment (EMV Migration) Forum, Card Forum, Payments Summit, Secure Technology Alliance and numerous international conferences.

PHILIP ANDREAE & ASSOCIATES SAMPLE CLIENT ENGAGEMENTS

Lowe's: SME and architect assisting in the integration of EMV "Chip and PIN" into authorization & settlement operations

Credit Union Electronic Transaction Systems (CUETS): Created a coherent EMV strategy, plan and business case, defining product implications and justifying the investment necessary to serve 600 credit unions and 800,000 card holders.

Canadian Tire Financial Services: Developed strategy, key management (cryptography), and business plan to convert CTFS' card and retail environment to EMV.

CGI: Created business case & executive summary in response to the GTA "Toronto" RFQ for a fare collection system.

AT&T/Unisource: 3-year engagement as Technology Advisor & mentor to calling card and Internet Services divisions. Initiated development of Center of Excellence to research the increasing role of Mobile Network Operators in Electronic Payments.

Oracle: Interim Director of EMEA Financial Services Consulting team as Oracle shifted to technology aligned focus and initiated development of a Center of Excellence to provide country teams with Business and Technical consulting resources

Ipsidy: Worked with local and off-shore teams to complete design and development of a platform to support closed loop pre-paid payments including a Mobile POS, Card and Mobile wallet offering built around a multi-bank clearing and settlement system. Assisted in the development of Identity and Authentication strategy for a SaaS identity service offering.

Infineon: Helped developed go-to market-strategy for their Coil on Module chip packing technology for US Card issuers.

GlobeID: Managing Director – Analysis of market opportunity and industry trends.

UC.COM: Acted as Chief Operating Officer of a global Payment Services Provider

Unicate BV: A multi-year assignment to developed and execute of a "go-to-market" strategy for an irrefutable proof of identity

Additional Clients Include: Anderson Consulting, Bank of Montreal, Blue Cross Blue Shield of Minnesota, British Telecom, Chemical Bank, Citibank, EF Hutton, IBM, NXP, Lowe's, Magenn Power, MasterCard International, MBank, NCR, Ontario Ministry of Justice, Paybox, Prudential Bache, RSA, Shearson Lehman Brothers, VeriFone and Visa International.

EMPLOYMENT HISTORY

OBERTHUR TECHNOLOGIES (now IDEMIA), Atlanta, GA

2013 – 2017

French *digital security* company that provides secure technology solutions for Smart Transactions, Mobile Financial Services, Machine-to-Machine, Digital Identity and Transport and Access Control.

Vice President

Subject matter expert supporting the sales teams and clients on the full range of Oberthur's products including Digital Payments, EMV and Personalization services related to the US migration from Magnetic stripe to EMV.

- Managed the development of all Smart Card (EMV) products to support the North America market.
- Thought leader contributing to the work of the Secure Technology Alliance, US Payment Forum, Mobile Payments Industry Working Group; Company spokesperson and industry evangelist promoting secure payments through media and industry conferences.
- Guided External relationships with industry partners, payments associations and clients.
- Led internal, client-specific training sessions: EMV 101, EMV 201, Introduction to the Card Payment Landscape & Mobile Payments.
- Delivered sales support and managed industry engagements as the US market migrated to EMV and embraced Mobile Payments.
- Provided subject matter expertise in Mobile Payments, Tokenization, EMV, NFC, ISO8583 & the nature of the Payments ecosystem.

ACCENTURE, Atlanta, GA

2012 – 2013

Accenture (NYSE: CAN) is a \$40+ billion global management consulting and services firm providing strategy, consulting, technology and operations services.

Management Consultant

Provided full-time Subject Matter Expertise to Accenture clients and internal consulting practice areas.

- Trained Accenture's internal project team on the payments and merchant acquiring business.
- Collaborated with client senior management to lead design of a "Capability Framework," enabling companies to design an organization to meet investors' vision, goals and objectives.
- Defined Target Operating Model for a Global World Class UK-based payments processor as they migrated from their previous Bank.
- Developed an impact analysis and business model for a leading utility provider to allow them to benefit from the financial implications of removing convenience fees from their online card acceptance model.
- Headed the team responsible for defining the business and technical requirements for a Leading Petroleum and forecourt operator's new Franchisee payment and loyalty solution.

AMERICAN EXPRESS, New York, NY

2011 – 2012

The American Express Company (NYSE: AXP), also known as Amex, is an American multinational financial services corporation best known for its charge card, credit card, and traveler's cheque businesses.

EMV Product Manager

Global Product Manager responsible for the Amex Integrated Payment Specifications (AEIPS) for Contact, Contactless and Mobile.

- Member of EMVCo working group focused on the specifications and type approval processes.
- Amex representative on the EMVCo Next Gen Task force.

VISA CANADA, Toronto, Canada

2002 – 2003

Visa Inc. (NYSE: V) is a multinational financial services corporation that facilitates electronic funds transfers throughout the world, most commonly through Visa-branded credit cards, gift cards, and debit cards

Vice President, Emerging Products & Technologies

- Member of Executive Committee mandated to drive the adoption of EMV standards and related new products and technologies in support of Visa's 23 member banks.
- Led Board to approve roadmap to implement EMV-based Smart Card ("Chip & PIN") and deploy Verified by Visa ("3D Secure").

EUROPAY INTERNATIONAL (Now MasterCard), Brussels, Belgium

1992 – 1996

Europay International was created by the merger of Eurocard International and Eurocheque International. It merged with MasterCard International in 2002.

Director, IT & Strategy

- Led IT merger of three companies and drove replacement of authorization, clearing and settlement systems
- Instigated and led the creation of EMV specifications.
- Instigated and led the creation of an authentication strategy for CNP security solutions for Internet Commerce.

SHEARSON LEHMAN HUTTON, London, UK

1987 – 1990

International investment bank and retail brokerage firm created by the merger of Shearson Lehman and E.F. Hutton & Co.

Director, Telecom Management

- Oversaw all technologies supporting European trading operations
- Orchestrated the consolidation "Right sizing" of the London operations.

THOUGHT LEADERSHIP

ASSOCIATIONS

FIDO ALLIANCE

Member of the Board and Secretary, 2013 – 2017

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

EUROPEAN COMMITTEE FOR STANDARDIZATION

SMART CARD ALLIANCE

SECURE TECHNOLOGY ALLIANCE

EMV MIGRATION FORUM

US PAYMENTS FORUM

RECENT SPEAKING ENGAGEMENTS

Keynote Speaker, "[EMV – Chip and Choice](#)," **EPCOR PAYMENTS CONFERENCE**, Columbus, OH – 2018

Presenter, "Deciphering Digital – Your Phone Is Your Wallet," **EPCOR PAYMENTS CONFERENCE**, Overland Park, KS – 2017

Presenter, "Identity is Fundamental," **MONEY 20/20**, Las Vegas, NV – 2017

Presenter, "[Identity and Payments](#)," **US PAYMENTS FORUM**, New Orleans, LA – 2017

Presenter, "A World of Connected Objects Designed to Serve Us," **IoT PAYMENTS**, Austin, TX – 2017

Moderator, **BAYPAY FORUM** – 2016

SELECTED PUBLICATIONS

[The Case for Identification and Authentication](#), 2018

[Podcast](#), *Future Tech*, 2018

[The U.S. EMV Journey: Migrating Last, Benefiting the Most?](#) *Idemia Webinar*, 2016

[Understanding the Role EMV Plays in a Digital Future](#), Interview in *PYMNTS.com*, 2015

[The History of EMV](#) and [The Mobile Chip and EMV](#), Two-Part Interview, *Information Security Media Group*, 2011

EDUCATION

Emory University, BBA Finance and Marketing, Atlanta, GA