

Specialist in Governance, Risk & Control for Financial Processes & Technology

Management and Leadership

- 20-plus years of experience in IT risk management, control design, implementation, monitoring and maintenance
- Focus on compliance of intelligent automation in business process management (BPM), robotic process automation (RPA), and artificial intelligence (AI)
- Consulting success in business process, IT risk and operations for Treasury, Finance, Capital Markets and Regulatory Compliance at CIBC, Manulife, CIBC Mellon, AIDC
- Progressive career from business analysis to program/project management and senior management appointment at Fortune 500 including AIG, Price Waterhouse, CIBC, SCOTIA

SOX Auditing, IT Risk and Control – Overview

- Led the testing and collaboration with external auditor on the SOX auditing og IT General Control and Application Controls at AIG Finance, Investments and Corporate
- Designed and developed CIBC platform for automated SOX assessment and assertion of controls for processes across 5 departments (operations, middle office, back office, finance, IT)
- Obtained OSFI certification for a local bank by mentoring the design, implementation of controls for 10 areas (IT governance, change, cyber security, etc.)
- Tested and evaluated SOX IT controls for NYSE-listed AGNICO-EAGLE. SOX documentation include design, test plan/results, process flowcharts in finance and IT

Financial Technology Analysis, Deployment and Management

- Delivered 7 concurrent project streams in accounting, equity, private equity and credit products for Treasury and Finance at North America's largest private pension fund
- Consolidated 500 high-level groups of BASEL requirements for 6 work streams (market risk, trading credit risk, operational risk, analytics, data and technology) for a major bank leading to the decommissioning of 80% of its legacy risk systems
- Documented and reviewed 10 groups of revenues generating processes (forex, net interest income, securities lending, custody and trust) and treasury's Payments & Bank Communications, Cash & Liquidity, Investments and Financial Risk at a major asset manager for SOX and ERP solution selection
- Consolidated 7 risk data areas encompassing market/ credit/ operational risk's 400 groups of risk reports, resulting in 20 conceptual Data Models and 20 data feed groups from 35 source systems covering 5 asset classes (Commodity, Credit Spread, Equity, Foreign Exchange, Interest Rate)
- Converted McKinsey's payment strategy into detailed roadmap for Jamaica's national bank to comply with EMV, launch co- branding programs and re-segment 7 families of card
- Spearheaded Asia Pacific leading insurer's IT in a 3-year lean/Six Sigma initiatives in Life insurance to integrate processes for reserve management, pricing, investment, claims, agency, business development, call center and CRM

Project Management Competency

- Expert with PMBOK and gated PMLC methodologies from Scotia, CIBC, AIG and PwC
- Extensive knowledge of Requirements Management Life Cycle, BABOK and DMBOK (DAMA)
- Expertise in Outsourcing Model and vendor policies and procedures (P&Ps), RFQ, RFP, SLA, OLA, service catalogues,
- Experiences with Business Analysis tools (user story, workflow, use case, data modeling, SIPOC, process map, VOP/VOC)

Development and Technology Competency

- Power user of R, Python, Access, Project, Excel, Word, Visio
- Expert in SQL, ETL, data architecture, data warehouse, analytics (ACL, Tableau, PowerBI, Cognos)
- Expert in evaluating, planning and deploying ERP Treasury, GL, HR, AR, AP (Peoplesoft, J.D.Edwards, SAP, SIMCORP)
- Expert in SDLC including technology governance, security threat risk assessment, operational gating, architecture, testing
- Experiences with developing web/ mobile applications using HTML5, CSS3, JavaScript, JQuery, ASP.NET MVC, Web services (REST, SOAP)
- Experiences with Application Lifecycle Management (ALM) using SharePoint, Team Foundation, Visual Studio
- Experiences with cloud and infrastructure (server, database, middleware, LAN/WAN) from LAMP, WAMP, AWS, AZURE, GOOGLE, IBM, Oracle

Professional Qualifications

- Executive MBA (Kellogg-HKUST)
- Master of Science in Physics (NTH Norway)
- Chartered Professional Accountant (CPA)
- Certified Treasury Professional (CTP)
- Certified Information Systems Auditor (CISA)
- Certified in Risk and Information Systems Control (CRISC)
- Certified Project Management Professional (PMP)
- PMI Agile Certified Practitioner (PMI-ACP)

Actively Pursued Qualifications

- Data Science Graduate Certifications (Harvard)
- DEVOPS (Microsoft, EDX)
- BLOCKCHAIN (IBM, EDX)
- Big Data (COURSERA, EDX)
- Cloud Computing (COURSERA, EDX)

PROFESSIONAL EXPERIENCE

SENIOR AUDITOR SOX Financial Control | AIG Wilton USA

Sep 2015 – Present

- Developed Proof-of-Concept for AI-based sentiment analysis to inform and improve human decision making and to augment AIG auditing capability in terms of scope and capability and eliminate manually intensive processes, while partnering with AIG business in their drive to adopt robotics and analytics
- Liaised with external auditor while streamlining the SOX audit Process by aligning the inventory of test plans against the corporate risk and AIG new business initiatives/ changes (organizational, process, technology) across SOX/MAR applications: transitioning of treasury functions to Dublin (Ireland) and SAP support to Manila (Philippines), data center consolidation, aggressive virtualization strategy, migrating to public and private cloud technology (AWS, Azure)
- Completed the 100% transition from external consultants (EXL) to AIG onshore/offshore staff – Fully internalized the planning and testing of 20+ controls and 50 test plans across 150 SOX applications in Corporate Business (Finance, Actuarial, Risk, Treasury)

SENIOR CONSULTANT / PROGRAM MANAGER | EVOQ Toronto Canada

Oct 2014 – Apr 2015

- Led a team of 3 EVOQ senior business analysts to coordinate with National Commercial Bank of Jamaica (NCB)'s 6 business units (Product Development, Business & Channel Analysis, Fraud Manager, Operations, IT and Finance) in order to translate McKinsey's Merchant Acquiring and Business Cards strategy for NCB into an actionable 5-year IT and products roadmap; directed an intensive 2 month-requirement elicitation and analysis to detail NCB challenges and opportunities in the card business, resulting into 5 comprehensive models (scope, process, rule, data and interface) and 5 scenarios complete with benefits, costs, risks and high-level project schedules for co-branding initiatives with retailers
- Led NCB's Finance, Operations and IT in crafting and seeking approval for a time-sensitive program to ensure EMV ("Europay-MasterCard- Visa") compliance. The program aligned 3 project streams: replacement of 3 Million credit- debit- prepaid cards; certification of 20,000 POS terminals and 300 ABMs; and IT development (EMV/ACH functionalities, reporting and interfaces for TSYS PRIME 4, Oracle GL, CRM, and FINACLE). Developed a business case for \$20 Million in budget with payback of 1.5 years from 80% fraud reduction and incentives (liability shift avoidance and Interchange Reimbursement Fee (IRF) reductions)

SENIOR CONSULTANT / PROGRAM MANAGER | LITCOM Toronto Canada

Jul 2014 – Jan 2015

- Led Continental Bank of Canada (CBOC)'s IT team of 10 specialists to comprehensively assess the IT control environment using COBIT, PCI-DSS, ITIL, ISO 27001/27002 and SANS. Scoped, planned and executed a program of 7 compliance initiatives targeting: IT governance; management of vendor, application, network and capacity, CRM, data governance and architecture, BCP/DRP, cyber and information security.
- Directed a team of 3 BCP/DRP specialists to complete CBOC's Business Impact Analysis (BIA) and Threat & Risk Analysis (TRA) to identify risk-exposed critical processes and evaluate related emergency preparedness and crisis communications; then documented the business continuity plan (BCP) in ISO 22301:2012-compliant Recovery Planner's RPX; ensured DRP completion with tests against vendors SLA/OLA over a MPLS-network for 20 branches using CITRIX XEN, LAMP and Microsoft
- Obtained CBOC's banking license after a 3-month OSFI certification process and the submission of a comprehensive report on IT self-assurance that includes IT policies, workflows, test plans, test results and improvement plans

LEAD IT PROJECT ENGAGEMENT | EVOQ Toronto Canada

Apr 2014 – Jun 2014

- Designed then trained 10 project managers/business analysts to use a proprietary project methodology with 9 core competencies (system integration, scope, time, cost, quality, staffing, communication, risk and acquisition) to be deployed across North America
- Led a team of 2 EVOQ analysts to conduct a feasibility study for integrating a client's platform in specialty credit and payment with ALGORITHMICS capability in financial risk and enterprise risk. Built a Proof-of-Concept with 5 real-time capabilities for incorporation of operational risk exposures into risk calculations, heat maps with instant visibility into risks, capture of Key Risk Indicators (KRIs) and identification/ alert on unauthorized product trading

DELIVERY MANAGER | SCOTIA BANK PMO Toronto Canada

Oct 2013 – Apr 2014

Enterprise Program

- **Core Deposits & Payments Non-face-to-Face (NFF):** Led a team of 40 team leads from business (Process optimization, retail deposit, call Center, fulfillment/central accounting, data warehouse) and IT/QA&T (Scotia On-line, call Center, AS400, Host mainframe). Applied SCOTIA PMLC and SDLC to manage and deliver on-time and on-budget the scope, deliverables and timelines for the bank's high-profile online deposit initiative to improve the customer Non face to Face (NFF) and call center processes

Projects Rescue Missions

- **Collection System Replacement (CSR):** Managed the transition to the new credit risk/debt management requirements from 2 business lines (Credit and Collections), using MS Project and MS Excel to develop new project/budget baseline for vendor and 16 IT development teams (Visa/SCOTIALINE, Scotia Plan Loan, Mortgage, ACH, etc.)
- **Family of Cards (FOC):** Led the intensive reformulation from project into program to create SCOTIA generic platform for branded cards; revamped the initialization phase by establishing a Program Charter, Road map and RACI comprising 4 lines of business (card, self-service, marketing and operations), 4 vendors, 17 IT team leads (Card, AS400, Call Center, host, etc.)
- **Retail Loan Platform (RLP):** Managed the capture of 12 change notices (PCN) for direct variable term loans from branches, including changes in credit origination and shared Insurance platform, which required 3 months extension of QAT, involving 3 key lines of business (unsecured retail lending, insurance, finance) and 15 IT team leads (retail loan, insurance, sales, risk, etc.)
- Developed and executed rigorous project risk and infrastructure management – including project controls standards and guidelines plus rigorous cost control and management in conjunction with financial system SMARTSTREAM HR; supplied high-quality business requirements, system design, quality assurance & testing QA&T plan and other MS Office artifacts

IT MANAGER | CONTROL SOLUTIONS Governance and Compliance Toronto Canada**May 2013 – Oct 2013**

- Analyzed AGNICO-EAGLES' IT and Finance processes through interviews and observations then documented, tested and evaluated 80-plus SOX controls for IT Governance, network (WAN/LAN, virtualization, firewall, Active Directory, database), middleware, security monitoring, application, help desk, change management as well as financial reporting processes on the company's JD Edwards G/L, A/P and A/R, fixed assets, procurement, HR payroll. Supported internal audit by providing Ernst & Young with comprehensive report of IT control and security – including process description, flowchart, test plan and results.
- Advised on future remediation plans for deficiencies, including 150 improvements on service delivery and support process. Provided guidance on IT Cyber security, Cloud (Oracle, VMWare), IT project intake, IT governance, QA/Testing and the management of 50 key vendors – in preparation for the consolidating of 20 IT data centers into vendor-based Q9 datacenter

MANAGER / BUSINESS ANALYST | HOOPP Treasury and Securities Accounting Toronto Canada**Nov 2010 – Jan 2013**

- Conducted on behalf of 3 business units (accounting, collateral & treasury management, security operations) a 2 month-review of Scope, SLA, and UAT results to evaluate the operational fit of a 3-month old SIMCORP back-office technology. Subsequently led 5 project managers and 10 developers to use AGILE to document the user stories for 300-plus initiatives to transform back office processes; successfully negotiated and prioritized the resulting product backlog then delivered a 20,000 man-hour work stream to integrate the new technology with portfolio management, securities trading and risk management
- Managed \$15M program with 7 concurrent project streams in accounting, equity, private equity and credit products - in parallel with the corporate's Lean/Six Sigma initiatives: financial accounting BI and data warehouse; fair value adjustment for swaps (equity, credit default and interest rate), equity basket options; corporate actions workflow for accurate dividends and splits; accounting analytics to reconcile trading G/L; automation of securities lending in short sales-trading. Coordinated a 6-month upgrade of SIMCORP 4.8, Oracle 11g and Windows 7 to 150 members of staff, complete with end-to-end UAT and review of SLA/OLA

SENIOR CONSULTANT / CONTROLLER | CIBC Financial Risk PMO Toronto Canada**Jun 2009 – Oct 2010**

- Led 6 project managers from 6 work streams (market risk, trading credit risk, operational risk, analytics, data and technology) through 3 phases of the Risk Strategic Initiatives at CIBC Risk: POC evaluation, selection and negotiation of ALGORITHMICS and SUNGARD. Documented business use cases for over 50 groups of workflow complete with calculation models, data dictionary and business rules catalog in the discovery then consolidation of 500 high-level groups of requirements for 6 work streams
- Confirmed the requirements with 6 sets of high-level user acceptance test cases and draft SLA/OLA. Developed the work packages, schedules and resource costs for 6 streams. Led vendors and IT through the "order-of-magnitude" exercise to analyze the benefits/cost of customization & operation. Negotiated vendors and technology on capital and non-capital spending to develop the project's \$80M budget. Coordinated 3 rounds of review with Management before securing Board's approval for the funding
- Formalized the PMO policies and structures to prepare for Gate 4 (Implementation phase). Developed PMO cost management system, customized CIBC PMLC Enterprise Delivery Framework (EDF) and institutionalized 50 templates for change management, governance & risk management, quality assurance, resource and infrastructure planning. Developed 3 tactical solutions to satisfy OSFI mandated revisions to the Basel II VAR methodologies for Incremental Risk Charge, Stressed VAR and Enhanced VAR

SENIOR MANAGEMENT CONSULTANT | SIERRA SYSTEMS Toronto Canada**Jan 2007 – Jun 2009**

- **CIBC Mellon Financial System Renewal Project FSRP (2007):** Led 5 ERP/BI specialists to consolidate the requirements for an integrated financial reporting process. Reviewed business/ system documents then interviewed management and SMEs to map 5 business streams (Finance, Treasury, Operations, HR/Payroll, Management) to confirm the situation statement, future state and solution requirement. Produced comprehensive enterprise business architecture, business process flows and capability matrices – which were later used for SOX reporting and Lean/Six Sigma initiative. Drafted RFP then led business in the evaluating of proposals from 7 vendors (Oracle PEOPLESOFT, SAP, SAS) for ERP, data warehouse and BI Business Intelligence solutions
- **CIBC SOX Secure End User Computing SEUC (2008):** Planned then successfully led through 3 gates (feasibility to closing) a solution search to secure high-risk financial processes (loss > \$5B). Project included RFP, POC and vendors evaluation to involve 5 vendors and 3 lines of business: Risk Management (model vetting); Middle Office (calculation of OTC derivatives); Retail Brokerage and Wealth Management (pricing/cash flow calculation)
- **MANULIFE Derivatives Accounting (2009):** Led 2 analyst/developer to develop the GAAP "Other Than Temporary Impaired" (OTTI) application to report from mainframe fair value, amortized cost, and unrealized gains/losses with disclosure on the nature of impairments for various fixed-income securities including government issues and private placements
- **Project rescue engagements:** Russell-Mellon Enterprise Investment Platform (Wealth and Brokerage), Balanced Scorecard/BI British Columbia Corporate Accounting Services (public sector), migration of MTO Road User Safety online channels for Revenue Management (public sector), system integration of Travel Insurance Coordinators TIC with Trent Health (P&C industry)
- Consolidated Sierra's PMLC and SDLC methodology on CA CLARITY into an integrated and gated project management and project risk management including cost, schedule and resource planning; developed client's evaluation guidelines for PPM tools including PRIMAVERA and PLANVIEW

SENIOR CONSULTANT | CIBC Control Division Toronto Canada**Jan 2005 – Dec 2006**

- Spearheaded a team of 5 analysts/developers in the design and implementation of Microsoft Access automated reporting system on controls for financial reporting, operation control and legislative and general entity compliance.
- Led the design and development of the "Internal Control Repository Tactical Solution" – a SQL Server-based application to store the SOX controls from 200-plus lines of business then automate the assessment (control test, deficiencies tracking and remediation planning) and assertion (exceptions/ significant changes and sign-off) processes
- Conducted the "Train the Trainer" and UAT for 4 control streams: financial reporting, operation control, legislative and general entity compliance. Managed the cleansing then conversion of 4,000 SOX controls from significant accounts and SOX sensitive IT applications into OpenText Internal Control Repository (ICR)

GLOBAL EXPERIENCE

SENIOR CONSULTANT / MANAGER | XEG LIMITED Sydney Australia

Oct 2000 – Dec 2004

- Developed a gated PMLC and SDLC Methodology for XEG outsourcing strategy, encompassing project and risk management,. Applied the PMLC methodology to successfully lead a team of 10 analysts and developers to construct in 1 year a comprehensive Australian-based online reporting facility in *industrial health and safety* for a group of 10 industrials. This enabled these *unionized* manufacturers to implement their exporting strategy, achieving a 20% increase in income of \$7.8M in 2 years

ASSISTANT VICE-PRESIDENT | AMERICAN INTERNATIONAL ASSURANCE (AIG) Hong Kong

Sep 1996 – Apr 2000

- **Business Transformation Harvester Initiative (1996-99):** Led 5 regional IT teams with 120 IT resources and 20 vendors to realize Accenture proposed 4 strategic objectives by establishing 9 regional initiatives (6 business plus 3 IT), including: Launch of AIG SUNAMERICA Asia Pacific online wealth and brokerage, PHILAMLIFE credit card platform; Asia Pacific Customer Care (Call center, Customer Relationship Management CRM, client/product business intelligence BI); Regional back-office re-engineering (lean Six Sigma) and Rejuvenation of mainframe-based insurance price engine through migration (architecture, data and UI)
- **Regional PMO (1996-97):** Set up the regional IT Program Management Office PMO and directed 15 managers to analyze, select, supervise and report a portfolio of \$100M of 100 initiatives in 15 countries. Institutionalised gated PMLC and SDLC, project intake, governance, risk and infrastructure management. Published policies, procedures, processes, tools and templates. Standardized project cost control, budgeting and accounting with *Critical Path Method (CPM)* and *Earned Value Management* to manage 20 system and outsourcing vendors; developed and get approved a 5-year capital budget for IT
- **Market Entry India, Vietnam (1999-2000):** Led 20 IT managers to set up the launching platform for endowment, group pension, property and casualty in 40 cities in India and Vietnam; recruited and trained local MIS staff, set up AS400 data centers in Chennai and Hanoi, and directed TCS (Chennai) and AIDC Guangzhou to customize the mainframe-Life applications for India and Vietnam

IT MANAGER | AIDC TREASURY AND FINANCE Sydney Australia

Oct 1993 – Aug 1996

- **Financial risk and Treasury (1994-96):** Spearheaded a team of 4 analysts/DBA to implement a multi-dimensional analytics system financial risk for debt & equity with capability to analyze syndication strategy and credit origination and to expand customer service capability by 20% especially in private equity evaluation
- **Financial Systems Decommissioning (1993-95):** Led a team of 3 developers to participate in the decommissioning of the legacy financial (mainframe) systems. Then implemented a vendor-package solution for treasury and corporate lending in 2 years to support Cash Management, Bank Reconciliation, Banking Relationship, ACH, daily bank Transmissions, Debt and Investments Management and Financial Risk Management

MANAGER / MANAGEMENT CONSULTANT | PWC-PRICE WATERHOUSE Sydney Australia

Oct 1990 – Sep 1993

- **Home Care Services (1992-93):** Led PWC business process reengineering team of 5 consultants to design then implement a comprehensive budgeting and roster application for 5,000 unionized staff at 56 branches and 84 service outlets; Managed the configuration of PEOPLESOFT financial for HR/Payroll/AR/AP and GL of 15,000 individual accounts of a statewide chart of account
- **WESTPAC DCPK (1990-92):** Reviewed the technology strategy at Australia's largest bank then designed, delivered a client-server based deal capture and position keeping for money market, currencies and derivatives. Subsequently led a team of 5 traders, 20 testers and 7 vendors to complete the UAT of key processes of pricing, trading, settlement and GL posting

EDUCATION AND CERTIFICATION

Data Science Graduate Certification	2018-Ongoing
PMI-PBA PMI Professional in Business Analysis, Project Management Institute	2015
CPA, CMA Chartered Professional Accountant. The Institute of Chartered Accountants of Ontario	2014
PMI-ACP PMI Agile Certified Practitioner, Project Management Institute	2013
CTP Certified Treasury Professional, AFP USA	2012
PRM Risk Management Certification, RiskLab, University of Toronto	2011
CRISC Certified in Risk and Information Systems Control, ISACA USA	2011
PMP Project Management Professional, Project Management Institute	2010
CMA Certified Management Accountant, The Society of Management Accountants of Ontario	2007
CISA Certified Information Systems Auditor, ISACA USA	2007
ITIL Foundation in IT Services Management, EXIN	2007
CSC Canadian Securities Course, Canadian Securities Institute	2004
MRes Master of Social Research, Macquarie Graduate School of Management Australia	2005
Executive MBA Master of Management, Kellogg - HKUST USA	2000
Master of Science Applied Physics Robotics, Norwegian Institute of Technology NTH Norway	1985

RECENT SELECTED PROFESSIONAL ACTIVITIES/INTERESTS

Cloud Security Alliance Working Groups: Security Guidance for Critical Areas, Big Data	2016-2017
ISACA IT Auditor Instructor	2017
R Documentation Task Force	2017