

## PROFILE

Anton is an IT Security professional with national and international experience in consulting, solutions-based engineering, governance and compliance, risk assessment and management, and overall security operations and management. He has over 30 years of hands-on experience in working with complex technical architectures and addressing business and organizational needs at the executive, managerial, development, deployment, audit and security levels covering risk assessment and management, IS management, project management and budgeting. He had focused on Information Security since 1994.

His current focus is on Governance, Infrastructure and Compliance and Security Management.

He is a creative, passionate and highly motivated individual with a proven track record of delivering creative and innovative solutions and working with leading edge Information Systems. He works with complex engagements that require a broad business and technical knowledge, dealing with problems of diverse scope, analytic interpretive and constructive thinking in unstructured settings. He demonstrates thought-leadership in defining business requirements, critical metrics and success factors and key performance indicators, to establish appropriate policies and procedures and documentary support.

His wide ranging background in the management and implementation of high reliability and high integrity systems for military, avionics, medical and financial applications has given him insight and understanding of strategic, support and operational environments.

He is a dedicated worker, excellent presenter and writer, skilled team leader, project manager and mentor who believes in people, teamwork and effective communication to achieve success and goals.

## VALUE PROPOSITION

*I can make you business run better - I can help you use information technology more effectively and improve the way it contributes to the corporate 'bottom line'.*

Business runs on IT these days, but making IT work - "aligning" it with the business - efficiently and effectively and making use of the latest innovations and techniques is key to staying ahead.

While there are many vendors eager to sell you product, who is going to make you aware of the risks, the pitfalls and the problems and help you navigate them and turn risks into opportunities?

Today's business climate is particularly hard on IT. There are many regulations and demands being placed on business and IT is having to shoulder the brunt of them – regulatory compliance such as PCI, PIPEDA, Sarbanes-Oxley and Bill-198, issues to do with privacy, protection of confidential information and records, accountability, protection against on-line theft, employee rights and risks and so much more. Technology can help but really it's about management.

IT investment is no longer about implementing solutions. It is increasingly about implementing IT-enabled change. This implies greater complexity and risk than previously, which means traditional IT Risk Management practices are no longer sufficient.

With the correct planning and management processes, IT-enabled business investments can bring huge rewards. Effective operations and delivery of value starts with leadership commitment and support from the top. Such leadership, while critical, is, however, not enough. A methodology, a proven methodology is needed.

- Diligence – doing the right thing and doing things right
- Policy – probably the single most powerful security tool
- Compliance – with law and regulations and with good practices and standards
- Risk Assessment & Management – recognizing traps and opportunities and using them to best advantage
- Change Management - because change is going to happen
- Enablement - making sure that there are processes in place so that all of the above keep on happening

Mr Aylward uses the internationally recognized **CobIT** audit methodology to assess and work with business managers and planners, This has the advantage of identifying the value issues and addressing IT matters in the language of business.

## PERSONAL ATTRIBUTES

### Achievement Orientation

- Develops plans & sets concrete goals. Seeks out more effective methods. Decisions & priorities and chosen goals based on benefits and cost.

### Vision

- Creates & communicates strategies and architecture to meet business needs and strategies. Long term, viable objectives.

### Team Leadership

- Takes care of staff, protect from internal and external interference. Obtains the resources needed to do the job. Maintains morale, respect, camaraderie and working environment.

### Initiative

- Acts before being forced to by events. Works out contingencies. Self-starter with strong analytical and problem resolution skills

### Teamwork & Cooperation

- Solicits input from other stakeholders and affected parties. Concern for others and “side effects”.

### Relationships

- Builds rapport through informal contacts in context of day-today work.

### Service Orientation

- Communicates with internal and external clients to clarify needs. Involves others in formulating requirements and deliverables.

### Analytical Thinking

- Insight into causal relationships and interconnections. Systematically addresses and analyzes complex situations & problems.

### Conceptual Thinking

- Identifies discrepancies and inconsistencies and ratifies “real meaning” to establish insight. Seeks out underlying patterns.

### Order and Quality

- Sets up systems and processes to ensure quality through clear requirements and responsibilities.

### Flexibility

- Demonstrates flexibility when applying rules or procedures according to context; adapts to meet the larger needs of the organization.

### Confidence

- Takes personal responsibility and admits mistakes.

### Control

- Calm in crisis situations. Works to constructively address issues rather than ‘personalities’ in stress situations.

## SKILLS

- IT Governance & Audit for Privacy and Financial regulatory requirements (**S-Ox**, **PIPEDA** etc), **CobIT**, **ITIL**
- Proposal Writing
- Management Accounting & Budgeting
- Documentation
- Good communication skills. Exceptional command of written English. Excellent presentation skills – Conference, Trade-show, Client/In-house
- IT Audit - Assessing the effectiveness of security procedures and processes at all levels: people, process, & technology
- Trained in use of CobIT for IT governance audit and risk management.
- IT audit planning and WBS, development of checklists and working documents
- Understand of the longer range business implication of IT decisions
- Provides direction and support for management on management of information security risk issues pertaining to IT, E-commerce, BCP, Technology and Process Risk Assessment and Management
- Process Improvement cycles – Maturity Grid
- Technology-Business Alignment
- Infrastructure Architect
- Change Management
- Risk Analysis - Risk & Impact Assessment at all levels: application, host, network, enterprise and project
- Technology Project Management - Extensive knowledge of project management principles; change and quality management; security, development, testing, deployment and operational metrics and of organizational structures
- Incident Management & Disaster Planning
- Security Policy formulation: workshops, awareness training, development and deployment of Policies, Procedures and Standards
- Network, Host and Application security
- Database Design, Management & security
- Security Classification
- Needs analysis based on customer requirements
- Mentoring & Knowledge Transfer - demonstrated technical leadership for all aspects of Information Security

## PRESENTATIONS

- *Presentation at Vanguard Security Conference – Denver, June 1998*  
Presentation on E-mail security received 4.9 attendee satisfaction rating  
Presentation on TCP security voted in top 25 most popular
- *Presentation/Workshop for ISSA, April 1999*  
Developing Security Policies
- *Sales Support Presentation with HP Canada, March 2000*  
Enterprise VPN: Concepts and Measures
- *Presentation for ISSA, April 2000*  
An Introduction to Information Systems Security
- *Presentation at 'Security.Net' – Toronto, September 2001*  
Risk Analysis
- *Workshop at 'Cyber-Sabotage/Internet Crime Symposium' – Ottawa, September 2002*  
Why Employees Don't Follow Policy & What To Do About It
- *Presentation at 'Managing IT Security Risk' - Toronto, February 2003*  
The Human Dimension: Why your Policies will fail if you don't create a Security-Savvy culture from the boardroom to mailroom
- [COBIT for ISO27001 Users: Concepts, Myths and Misconceptions](#) – Toronto, November 2006,  
[The Fourth Annual Canadian ISO17799-ISO27001 Conference](#)
- *Presentation at IT360 Canada 2008, April 7-9, Metro Toronto Convention Center –*  
[How to Survive an Audit and get an Acceptable Rating](#)
- *Presentation at IT360 Canada 2010, April 7, Metro Toronto Convention Center –*  
[Unstructured Data: Are you being Paranoid enough? Security issues with mobile devices](#)

## QUALIFICATION

- B.Sc. (Hons) University of Kent at Canterbury, with Engineering Management electives
- Management-track course, Marconi-Elliot Avionics, UK
- Internal Auditing Methodologies & Standards, Bank of Montreal, 1998/9
- Graduate of Dale Carnegie course on Public Speaking, teaching assistant and student coaching - 1986-89
- Certified Information Systems Security Professional (**CISSP**) - June 1997,
- Certified Information System Auditor (**CISA**) - June 2002
- Board member of the Toronto chapter of International Systems Security Association (ISSA)
- Web site designer and administrator for the Toronto chapter of International Systems Security Association (ISSA)
- Member of the International Information Systems Security Certification Consortium (ISC2)
- Member of the Information Systems Audit and Control Association (ISACA)
- Member of the College of Information Assurance Professionals (CIAP)
- Government of Canada Security Reliability Status – effective April 2008
- Moderator: LinkedIn CISSP-Financials Group
- Moderator: LinkedIn Risk Managers Group

## CHRONOLOGY

### **System Integrity** 2008-Ongoing ADSC

**1995 - Present**  
*Principal*

Presentations on Governance, Regulations, Risk Management and Resilience to clients of *Applied Direct Services Corporation*, some using teleconferencing technology. GRC overview of SaaS and distributed development projects. Risk analysis and modeling for ADSC clients. Security Awareness training. Support & development of marketing initiatives.

### **2005-2006 Bank of Montreal, Internal Audit – Phase 2**

BMO having set up a formal Information Security Operations section, the full division of responsibility between ISO and audit proceeded. Mr Aylward's work with BMO Internal audit now focused on risk and regulatory compliance, audit of IT and ISO operations, of the ITIL process and support structure, document management, and preparatory work for outside audit to meet FFIEC, ISO-17799/27001 and CISP (later PCI:DSS) requirements. His audit work also covered:

- ❑ Conducting risk-based evaluations of the design and operating effectiveness of IT and procedural controls
- ❑ Verifying conformance with internal policies and procedures
- ❑ Key management for secure communication with instant tellers and other financial institutions and operations
- ❑ Conformance with IAM requirements of FFIEC, Sarbanes-Oxley and other regulations
- ❑ Implementation and management of central logging and incident management database and supporting facilities including reporting and resolution

### **2004-2005 Rogers Cable Inc (RCI)**

- ❑ Sarbanes-Oxley compliance audit prior to external audit by KPMG
- ❑ Review of Rogers Corporate Security Policy
- ❑ Regulatory internal audit of financial processing systems for Sarbanes-Oxley compliance
- ❑ Regulatory conformance audit of selected critical systems for Sarbanes-Oxley compliance covering policy, operations, monitoring, incident handling, management reporting, hardware and physical security.
- ❑ Security review of internal database and database support platforms, covering Oracle, Sybase and Progress on HP/UX and AIX
- ❑ Security review of HP/3000 mainframe system and operations at [The Shopping Channel®](#) for Sarbanes-Oxley compliance
- ❑ Detailed review of IT Security Administration processes for UNIX, Windows and mainframe platforms

### **2001/2002 Government of Ontario Ministry of Justice; Integrated Justice Project (IJP)**

Analysed, developed and delivered information security policies and procedures within the technical architecture group, under a new Director of Security. Performed risk and vulnerability assessments of the technical architecture, the networking infrastructure, and the application verticals.

#### **Policies and Procedures**

Writing of basic operating policies; liaison with various groups and stakeholders.

#### **Malware Defence Recommendations**

Analysis of data flow and system partitioning. Review of malware techniques and technologies. Review of vendors' anti-virus and anti-malware products and techniques. Recommendations multi-layered solution for a heterogeneous environment.

#### **VPN Needs Analysis and Recommendations**

Critical factors in selection of VPN subsystems; VPN Appliance performance evaluation issues; LDAP database issues; certificate issues.

#### **Information Classification**

Classification scheme for internal data; tie in with proposed role based access control schemes.

### **Risk Modelling**

Ongoing modelling of simple and complex attack models; architectural and support problems.

### **Network Architecture Risk Analysis**

Attack, vulnerability and failure mode analysis; fallback strategies; proposals for hardening. Analysis of configuration and IDS options. Analysis of systemic and architectural weaknesses and vulnerabilities. Proposed alternatives and methods for mitigation.

### **Business Vertical (Application) Risk Analysis**

Analysis of communication between the business verticals; analysis of communication within an application; analysis of risks presented by support options. Proposals for mitigation and containment.

### **1997-1999 Bank of Montreal, Internal Audit IS, and IT**

Added value to BMO security process by being able to provide technical insights that went beyond the scope of the investigative methods conventionally employed by auditors. Proficient in the use of the **COBIT** model and **COCO** tools for audit and information assurance.

#### ***IT Audit & Information Security Support:***

- Support for internal audit on technology projects, with special emphasis on information security;
- Planning IT and IS audit; execution; identifying risk factors (TVA) and proposing remediation;
- Technical support and liaison with non-IT audit staff;
- Risk assessment of Internet-facing project for mBanx & network operations at HarrisBank;
- Internal audit preparations for external audit & addressing issues raised by external auditors.

#### ***Audit of BMO's London (Treasury) Operations:***

- Audit of BMO's London (Treasury) Operation, computer systems: servers, workstations, external data, interfaces using network, host and application scanning tools;
- Audit of computer operations policies and procedures and proposed network design;
- Presentation of results and recommendations to operations in London and to corporate management.

#### ***Recommendations to London:***

- General computer operations, policies and procedures;
- Design, capacity and documentation issues;
- Security awareness and training;
- Backups and disaster recovery;
- Configuration management and control;
- Use of Network File System and Networked X-Windows; specific controls and remediation.

#### ***Audit of new technology projects***

- Development of risk model for new technology projects;
- Development of '*project audit charter*' – determine the degree of audit oversight needed at various stages in the project life-cycle
- Regular liaison with project managers and developers on critical software development projects
- Audit of CEBRA network and networking operations.
- Audit of Entrust based secure E-Mail pilot. Pre-release, uncovered serious administrative and operations procedures, which compromised the security of data handling though to the executive and board of directors level.

#### ***Audit of internet-enabled projects***

- Audit of Voice-over-IP proposal and prototype for end-user support of mBanx applications; application development and deployment
- Audit of Rational Rose UML designs, state machine models, web-enabled application state transition models for integrity and consistency. Liaison with software architects and developers on security and cryptographic issues. Analysis and audit of proxy and reverse proxy mechanisms to support authentication and data protection is a 'stateless' web enabled application.
- Security issues surrounding shared use of IBM RS/6000 SP multi-processor by projects of differing security needs. Needs analysis and review of internal firewall.
- Review of periodic scans carried out by Price Waterhouse Coopers;
- Liaison with Internet gateway group at HarrisBank (Chicago); Toronto networking groups at Willowdale Computing Centre, Emfisys Division; Information Security Division.

## 1996-1997 NetSteps Inc.

NetSteps was an ISP and software developer serving the downtown financial service community.

- ❑ Responsible for all aspects of security practices for internal and customer-facing operations.
- ❑ Development of Security and Operational Policies and Procedures.
- ❑ Provided comprehensive support and guidance to staff and sales.
- ❑ Worked with salesman to develop security related opportunities at existing and new clients.
- ❑ Internal Risk Assessment and Remediation covering Physical and Logical Security.
- ❑ Led the development of policies and procedures and standardized operations for customer service, including 'Help Desk' functions.
- ❑ Working with software developers to address security practices.
- ❑ Support for NetSteps at trade-shows and conferences.

### Other Client Include

ING Direct, Carleson Marketing, Liberty Health

## **The Strahn & Strachan Group Inc**

1994 – 1995, Partner

The business focus of S&S was the technical aspects information security, both internal to client and via the Internet. Emphasis on education and security

awareness rather than specific hardware and technology, the development of policies and operating procedures and security management. AJA's work involved him in preparing detailed proposals for projects and funding, cash flow and budget projections, presentations to technical, managerial, sales and executive staff, as well as hands on aspects, both at the technical and the project management and administration levels.

### Other Clients Include

Oshawa Foods, Davis & Henderson Intercheques, I-COM/Canadian Market Images, Consumers Gas Co. Ltd.

## **UUNorth Inc**

1990 - 1994

*Founder, President, Chief Architect, Visionary*

**\*\*\* This was the first fully independent (no government or university involvement) Canadian ISP, predating the "dot-com" boom and setting the standard for the others that would follow.**

Sourced, developed and provided start-up capital. Wrote business plan and obtained financing. Established peer relationships with ANS-CORE and Fonorola-Internet. Developed marketing profile and plan; presentations client CFOs, CTOs and CEOs. Developed and marketed 'franchise' agreements for locally operated remote points-of-presence throughout Ontario. Designed and installed main site Ethernet LAN running TCP/IP; Managed FTP servers, SL/IP and PPP dial up services. Managed staff, recruiting, internal and external projects. Set up Toronto's first commercial WWW server. Ran DNS and MX service for a large number of UUCP-only sites. Developed "AccessPoint" an entry level Internet service which was an extensive suite of programs. Developed first "Municipal Web Site" for the City of Windsor. Pioneered ISP Security profiles and methodologies. Marketing & technical presentations throughout southern Ontario.

### Client List

Burns Fry, Yorktown Securities, Noranda Inc., International Surveys Limited, Footprint Software, Systematrix, Empress Software, Davies, Ward & Beck, Borden & Elliott, Connaught Laboratories, Rand Inc., Weight-Watchers of Canada

## **Analysis Synthesis Consulting Inc (Canada)**

1982 - 1994

*Founder, Consultant*

Founded ASCI in 1984 for general UNIX and network consulting, installation, configuration and administration. Projects included database and office-automation work with Oracle and Progress. Configuration and tuning of Progress databases and applications utilities for SCO UNIX. Designed UNIX applications for office automation and teamwork environments. Presented courses to federal government departments on UNIX, client/server, relational database and other emerging technologies.

### Client List

United Financial Management, Federal Public Works, Fidelity Investments, The Salvation Army, Litton Systems, City of Metropolitan Toronto Management Services Division, Department of Indian Affairs

## **Analysis Synthesis Ltd (UK)**

1980 - 1982

*Associate Consultant, Partner*

Worked with high reliability embedded real-time systems in medical, engineering and real time control applications; Pioneered UNIX based real-time applications. Early commercial applications of UNIX databases and networking.

Wrote various proposals and studies under government sponsored schemes to encourage use of microprocessors in industry. Pioneered techniques now known as "Component-Ware". Integration with databases for extensible and user configurable applications.

**Clients included** GEC, South of Scotland Electricity Board, Ever-Ready, Kemitron (the people who built the electronic gearbox for Jaguar).

**Advanced Micro Devices  
(UK Europe California)  
1979 - 1980  
Field Sales Support**

Field Sales Support for Microprocessor and Microcomputer Systems for UK & Scandinavia; Front-line sales support for new designs. Presentation design for product release tour through central and southern Europe and Scandinavia. Liaison with and presentations to California design and marketing staff and at annual conference in Hawaii. Developed and facilitated technical training courses for customers and end users. Wrote application notes and created demonstration software. Developed FORTH interpreter for demonstrating capabilities of Z-8000. Consulting and pre- & post-sales support to AMD's client base in the UK and Scandinavia. Responded to RFPs.

**Marconi Elliot Avionics (UK)  
1977 - 1979  
Development Engineer**

Design of Avionics Systems to Military and Commercial standards. Pioneered M-E's introduction to Very Large Scale Custom Integrated Circuits. Solely responsible for the design of the MIL-1553-B chip set. Working with bi-phase and optical communications and protocols. Developed test harnesses and designed test data sets from functional specifications; Computer Aided Design.

**Management Track Candidate:** Managed apprentices, technicians and other engineers. Presentations to divisional management, Project budgeting. Interview techniques.

## STRENGTHS

- Visionary outlook to problem solving. Generates possible scenarios and contingencies.
- Thinks in terms of overall objectives rather than focusing in on transient details.
- Critical thinker; can focus on, evaluate and reject or accept ideas and plans quickly.
- Good at seeing patterns, abstractions, generating and eliminating possibilities.
- Achievement driven. Communicates enthusiasm. Seeks real application of ideas.
- Excellent at Intuitive Analysis and recognizing the large scale and long term implications of the design and decision making process. Very practical outlook.
- Comfortable dealing with ambiguities and incompletely specified situations
- Able to collect & integrate information on a large scale and invent solutions and possibilities.
- Excellent communication & presentation skills. Provides mentoring and technical leadership for networking, systems and applications security.
- Wide range of skills – technical, organizational and business - and well-disciplined approach to delivering solutions
- Works well with all aspects of business, sales, operations, management, audit, & technical staff.
- Practical and far sighted. Understands long term consequences of strategic and tactical decisions.
- Ability to generate contingencies, converting ideas into step-by-step logical plans.
- Involves others in the brainstorming process to work through the solutions: 'talk though an idea'
- Excellent analyst and problem solver, a synthesist with a great deal of insight.
- Demonstrated technical leadership ability.
- Identify dependencies, critical areas and estimate the required costs and resources.
- As internal consultant, recommends strategies for the most cost-effective investment of resources to implement management's policies
- Skilled Communicator
  - Good listener. Good Writer. Good Presenter.
  - Graduate of Dale Carnegie, teaching assistant and student coaching
  - Regular contributor to on-line professional security forums
- Strategic Thinker
  - Focuses on goals and objectives -- "What is the deliverable?"
  - Aware of industry trends and concerns

- Works in context of the Organization's needs, not just the IT department
- Tools and techniques for empowering rather than short term solutions and 'fire fighting'
- Political Peripheral Vision
- Visionary Outlook
- Team Leader
- Manages Expectation
  - "Delivers what he Promises"
  - Never promises unless absolutely sure it can be delivered
  - Implications for project level risk management
- Understands Financial aspects of technology decisions
- Manages Vendors/Suppliers