

# Robert J. DuWors, CISSP, CISA

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## Matching business needs to effective and secure IT solutions

**Qualifications looking forward:** Seasoned IT professional with a proven track record of progressively providing advanced and secure business solutions seeks role to maximize business value by leading the alignment of technology strategy with business strategy.

- **Enterprise Architect**
  - Participate at senior business and IT levels
  - Enhance and secure the total value of enterprise IT assets
  - Alignment of IT resources and processes with business strategy
  - Effective utilization of Enterprise Architecture in IT governance
  - Certified Information System Auditor (CISA)
- **Information Security Professional**
  - Application and infrastructure security design, review and operations
  - Compliance, risk management, security audit including COBIT
  - Process rationalization and improvement including ITIL
  - Certified Information System Security Professional (CISSP)
- **Solution System Architect / Technical Project Manager**
  - Identify high value targets of opportunity
  - Knowledge capture and advanced conceptual analysis
  - Requirements and Architectural Design
  - Lead and contribute to multidisciplinary IT developmental and architecture teams
- **Industrial sectors:** Successfully completed major initiatives for telecommunications, health care, information security services, aerospace, auto Insurance, automotive and industrial process control, medical diagnostics, oil and gas exploration, climatology, the public sector and others.
- **Education and Certifications:**
  - **Bachelor of Science:** Computer Science with Distinction from the University of Calgary
  - **Postgraduate training:** Computer Science, University of Calgary and Carleton University
  - **Professional Certifications:**

CISSP	Certified Information System Security Professional
CISA	Certified Information System Auditor
CCP	Certified Computer Professional
Foundations	Certified ITIL and COBIT Foundations

- **Technologies:** utilizing wisdom gained from multiple generations of technologies and methodologies.

#### Systems and Software

- **UNIX/Linux:** Solaris, HP-UX, AIX, RedHat Linux, etc.
- **Windows:** Vista, XP, Server 2003
- **Virtualization:** VMWare
- **Persistence:** Oracle, LDAP, etc.
- **C family:** C, C++, Java, etc.
- **Scripts:** Javascript, Bourne, PERL, CMD, etc
- **Other Languages:** Cobol, Fortran, PL/1, many assemblers
- **Web:** HTML, J2EE, XML, XSL, AJAX, etc.

#### IT Methodologies

- **Techniques:** OOP/D/A, SOA, Component Based
- **Specification Tools:** ERD, UML, Software Architect
- **Protocols:** TCP/IP stack from network to applications levels
- **Project Management:** MS Project, PDF
- **Architecture:** Enterprise, Application, and Infrastructure levels

#### Information Security

- **IT Governance:** COBIT
- **IT Service Management:** ITIL
- **Process Maturity:** CMMI
- **Security Frameworks:** ISO 17799, NIST 800-xx Series
- **Risk Management:** NIST 800-30, AS/NZS 4260:199
- **Application Security:** SDL, ASF
- **Tools:** Qualys, AppScan, ESM
- **Processes:** PPM and PM, CAB, SAR, Incident Response, etc

- **Historical perspective looking back - Professional Experience**

- **Sr. Principal Information Security Analyst**

**Symantec Corporation: Eugene, Oregon**

**2006 - Present**

Create IT security policies, best practices, operational procedures and tools for the Symantec IT department and for use of outside IT services.

- Perform in depth application security reviews utilizing extensive experience in system analysis, design, and implementation.
- Participate in security IT governance across the SDLC steps integrated with ITIL methodology: information security policy development, project conceptual and architectural reviews, Change Advisory Board (CAB) release approval, and final Transition To Operations (TTO).
- Enforce privacy and compliance requirements such as PCI and SOX.
- Implement specific use of tools and systems such as AppScan for web application security, Ingrian for enterprise data security, automated support of Qualys vulnerability scans, internet address control for large scale network (100K+ network).

- **Consulting IT Architect and Owner 1988 – 2006**

**Connected Systems Group: Seattle, Cincinnati, Ottawa**

Successfully established the Connected Systems Group (CSGroup) to provide technical management consulting services to IT and business users in the private and public sectors for the architecture and construction of leading edge distributed applications and infrastructures.

#### **Representative CSGroup Engagements: 2000-2006**

[Microsoft](#)

- Verification testing of pre-launch Vista shell features.

[Boeing Corporate](#)

- Internal IT audit for Sarbanes-Oxley (SOx) Section 404.

## Representative CSGroup Engagements: 2000-2006 cont'd

### ETAS

- Managed project for next generation Automotive Life Cycle Diagnostics stressing use of advance anomaly detection strategies in conjunction with the [Center for Intelligent Maintenance Systems](#) at the University of Michigan.
- Designed and built embedded Java prototype for dynamic in-car service distribution via embedded in-vehicle telematics gateway.

### Boeing Integrated Defense Systems

- New architectural pattern for deployment of future AWACS aircraft computer systems based upon the use of blade servers, event based programming, and message driven architecture.

### Boeing Commercial Airplanes

- Integration architecture of large-scale systems and associated business processes supporting the design and manufacturing functions of aircraft configuration (PDM) and production control (ERP) .
- Created the generic three-level reference architecture to compare Enterprise Integration (EI) servers: communications, message switching, and business process.

## Representative CSGroup Engagements: 1990-1999

### Convergys

- Product line architectural analysis of technical and business aspects of the family of very large telecommunications billing systems (hundreds of millions of bills issued per year) on behalf of the Vice President of Product Line Architecture at this \$6 billion-a-year international company.
- Developed the advanced architectural pattern using business processes and embedded business rules based around document flows, to maximize externalization of control and configurability (Business Process Modeling).

### Farmers Insurance

- Represented the Chief Information Officer on the team developing eBusiness strategy for the CEO's Council reviewing all aspects of eBusiness for this \$10 Billion a year Property and Casualty Insurance company.

### Anthem

- Served as the Chief Architect reporting directly to the CTO and CIO of Anthem, an \$8 billion-a-year company and the largest Blue Cross/Blue Shield licensee in the United States.
- Established core Enterprise Architecture functions and designed Enterprise Architecture Repository.
- Worked with CIO on special projects and technical reports, including eCommerce and systems consolidation.
- Also involved with governance activities such as enterprise IT Technical Standards, The IT Integrated Systems Plan, The IT Business Plan, The IT Master Project Plan, and participating in the IT Senior Team.

### Qualcomm

- Hands on technical research and directory services policy for using LDAP in e-mail client and server product lines on behalf of the Eudora Division of QUALCOMM.
- Listed in final Eudora 7.1 in-line engineering credits.

### New Zealand Post

- In affiliation with [Optimation New Zealand Ltd](#), on behalf of the national postal system of New, Zealand researched and authored the 80 page report entitled *Synergy in Communication and Delivery Systems: 1995 to 2005*. This analysis has stood up notably well to the test of time.

## Representative CSGroup Engagements: 1990-1999 cont'd

### [Alltel Information Services](#)

- Developed enterprise wide network computing security strategy covering network infrastructure, computing platform operating systems, application level security, and remote access.

### [Progressive Auto Insurance](#)

- Converted 5000+ desktops from NETBUI to full TCP/IP stack.
- Championed and implemented initial version of what became the dominant consumer portal in its market segment.

### [Bailey Controls](#)

- Developed a real-time, object-oriented architecture for the next generation of a large-scale industrial process control system.
- Researched and defined reactive and continuous models of computation, distributed objects and temporal aspects, asynchronous and isosynchronous messaging architectures, event based programming and formal protocol design, and human interface factors.

## Representative Projects CSGroup Engagements: 1988-1989

### [DoD / DnD](#)

- Delivered flight simulation and climatology software.

### [Gandalf Technologies](#)

- Developed test system architecture, designed object oriented e-mail system, and piloted formal methods for protocol specification in cooperation with the [Protocol Research Group](#) at the University of Ottawa.
- Co-authored "[The Algebraic Specification Language LOTOS: An Industrial Experience](#)" which used formal methods to analyze the internal architecture of a data switch.

## • Additional professional experience:

### [SHL Systemhouse:](#)

Senior Management Technical Consultant for Systems Integration

### [GE Aircraft Engines:](#)

Senior Technical Analyst and Designer

### [Alberta Research Council:](#)

Associate Research Officer, Senior Technical Analyst

### [PetroCanada:](#)

Senior Technical Manager, Chief Programmer – Formation Evaluation

- **Personal:**

- **International Experience:** USA, Canada, France, Israel, New Zealand
- **Citizenships:** American and Canadian (dual)
- **Professional Associations:**
  - [ISACA](#) Information Systems Audit and Control Association
  - [\(ISC\)<sup>2</sup>](#) (maintains and administers the CISSP certification)
  - [ACM](#) Association of Computing Machinery
  - [IEEE](#) Institute of Electrical and Electronic Engineering
  - [ACFE](#) Association of Certified Fraud Examiners
  - [MPP](#) Microsoft Partner Program

- **Publications:**
  - “The Algebraic Specification Language LOTOS: An Industrial Experience”* in the Proceedings of the **ACM International Workshop on Formal Methods**, Napa, California, May 1990.
  - “Synergy in Communication and Delivery Systems: 1995 to 2005”*, a commissioned report for the National Postal system of New Zealand paying special attention to the New Zealand environment.
  - “Expanding the Software Engineering View”*, Forum in **Communications of the ACM**, June 2000, volume 43-6, pages 13-14.
  - “Emphasize Positive Feedback in Personalization”*, Forum in **Communications of the ACM**, Volume 49, Number 2 (2006), Pages 11-13.