

## Ghislain Hachey, *ever evolving, ever progressing*

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CONTACT INFORMATION Nuzusys  
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CITIZENSHIP CANADIAN

PROFESSIONAL EXPERIENCE **Nuzusys, Port Vila, Efate VANUATU**

*Founder, Senior Systems Engineer* **January 2014 to Present**

Nuzusys is a new company that will be offering modern high quality software and hardware products all based on open standards and free software. Nuzusys will foster a community of micro-entrepreneurs and technology enthusiasts who will bring those services to their communities. My role as Founder and Senior Systems Engineer includes all the foundation work to setup the organisation.

Nuzusys offers services geared towards the small and medium business, schools and government organisations.

*Managerial duties and responsibilities:*

- Establish systems and network administration procedures and policies along with advanced tooling to help manage an evolving technology infrastructure
- Establish software engineering policies and procedures to manage all software either written or directly supported by Nuzusys
- Establish business policies and procedures including business rules of operations, accounting practices, product pricing, basic legal policies, marketing and management/leadership roles

*Technical duties and responsibilities:*

- Deploy various state-of-the-art software systems to support technical operations including: an advanced backup system, virtualisation and cloud technologies, network monitoring systems, traffic management systems, application deployment and configuration management systems, issue tracking systems, knowledge database, collaboration platforms and a centralised logging system
- Deploy various security systems to protect both Nuzusys' infrastructure our Nuzusys clients' infrastructures
- Develop the company website which will integrate a portal with advanced support tools, invoicing and payment features and online shopping for clients and Nuzusys micro-entrepreneurs
- Build all the software configuration to automate various IT operations
- Integrate several of the above system into the company's Enterprise Resource Planning and Customer Relationship Management system
- Setup demos of offered products and services
- Provide training to Nuzusys micro-entrepreneurs and IT partners
- Develop and support custom software for clients.

**Pacific Legal Information Institute (PacLII), Port Vila, Efate VANUATU**

*Senior ICT Consultant*

**July 2013 to December 2013**

*Consulting Activities:*

- Analyse current data center infrastructure and provide advise for short and medium term
- Deploy various monitoring systems for the small data center and organisation network (traffic management, network infrastructure monitoring)
- Assess and improve backup procedures in place
- Provided systems administrator with training

**Computer and Network Services Ltd. (CNS Ltd.),** Port Vila, Efate VANUATU

*Technical Manager*

**November 2007 to Present**

*General duties and responsibilities:*

- Oversee the management of all technical operations
- In charge of typical administrative tasks – human resources management, project management and prepare proposals and quotations
- Oversee the design and deployment of computing infrastructures for organisations (i.e. firewalls, office servers, networks, workstations, communication systems and systems and software integration)
- Oversee the design, development, installation and maintenance of numerous databases and management information systems (MIS)
- Oversee the design, development, installation and maintenance of numerous database driven websites and applications
- Constantly improve how I conduct my duties within our organisation and to our valued clients, which include schools, colleges, micro-finance institutions, government departments, local and international NGOs and private businesses

*Significant achievements:*

- Implemented a service call tracking system to improve the effectiveness and quality of the organisation's services
- Implemented a wiki to serve as the organisation's knowledge base to document technical and administrative policies, procedures, user guides, templates and clients' technical information
- Built the first successful data center in the country from the ground up
- Adopted server virtualisation to consolidate servers making better use of hardware, reduce electricity consumption, ease management and increase security
- Replace all equipment with power efficient hardware to reduce power consumption and work towards a more green organisation
- Standardised most of CNS' policies, procedures, letters, contracts, service level agreements, proposals and quotations templates
- A large and growing number of office network deployments, database driven websites, MIS and systems and software integration projects
- Standardised our software tools and products to mostly free software with internationally recognised open standards
- Put in place a simplified software development policies and procedures based on SWEBOK (Software Engineering Body of Knowledge)

**Infosyst Open Solutions,** Bathurst, NB CANADA

*Managing Director*

**September 2006 to December 2010**

*General duties and responsibilities:*

- Overall setup of all policies, procedures, accounting practice.
- Design, develop, deploy and maintain software projects including websites, databases and MIS.

*Significant achievements:*

CAPACITY  
BUILDING AND  
TEACHING  
EXPERIENCE

- Successfully setup a GAAP compliant accounting practice for the organisation using the free software project GnuCash – [www.gnucash.org](http://www.gnucash.org)
- Designed, developed, deployed and still maintaining software projects

### **Computer and Network Services Ltd.**, Port Vila, Efate VANUATU

*Technical Adviser*

**November 2007 to Present**

*General duties and responsibilities:*

Technical Staff Support: On-going advising and training of technical staff.

- Train staff on how to conduct effective research in problem resolutions
- Train staff doing information technology (IT) desktop support, systems administration, network administration, web development and maintenance, database development and maintenance and electronic repairs
- Develop policies and procedures for technical operations.

Management Staff Support: On-going advising and training of administrative staff.

- Train staff on using a wiki as a organisation's knowledge base system documenting procedures, policies, templates and technical experience
- Train staff on using a help desk system (aka. ticket system) to improve service delivery and operations management
- Train staff on using a custom management information systems (MIS); effective daily data entry, dynamic report generation and analysis and automated distribution of reports and information to improve the organisation's efficiency

### **Edwards Computer Foundation Ltd.**, Port Vila, Efate VANUATU

*Senior Instructor and Adviser*

**February 2011 to Present**

*General duties and responsibilities:*

- Develop new courses and programs following best practice of instructional design for the local Pacific context
- Teach an advance diploma in information systems (IS)
- Convert all courses of the advance diploma in IS into SCORM compliant e-learning courses
- Make the program available online in a learning management system (LMS) [<http://learning.cns.com.vu/>]
- Evaluate, choose and deploy an appropriate LMS for ECF
- Evaluate, choose, develop and deploy web based information systems
- Train instructors to take over me eventually
- Train instructors to help me offer the course remotely in our other branch office in Santo

*Significant achievements:*

- Developed a new program for the ECF school from the ground up – Advance Diploma in Information Systems [<http://ecf.cns.com.vu/program/24/>]
- Developed each course from the ground up simplifying the material and contextualising it to the local Pacific culture [<http://learning.cns.com.vu/course/view.php?id=5> — guest password is “Gu@5t”]
- In the process of building a solid web presence for ECF (ECF Website, School online Management Information Systems, Online learning system)
- Established the first distance and flexible learning institution in Vanuatu and the first privately owned one in the Pacific [<http://learning.cns.com.vu/>]

## People First Network, Honiara, Guadalcanal SOLOMON ISLANDS

### *Capacity Building Officer*

**September 2005 to September 2007**

#### *General duties and responsibilities:*

- Build technical capacity within the People First Network (aka. PFnet and Pipol Fasteam Netwok) organisation [www.peoplefirst.net](http://www.peoplefirst.net)
- Build technical and administrative capacity within the Distance Learning Center Project (DLCP) organisation – search <http://wikieducator.org/>
- Help operate and maintain the wireless short wave rural network
- Improve the overall network infrastructure management
- Improve Internet security
- System design and documentation
- Documentation of procedures for sustainability
- Evaluation of software systems to adopt for the DLCP

#### *Significant achievements:*

- Build capacity of staff using a free OS – GNU/Linux (Fedora Core)
- Developed the first online course prototypes for the DLCP; Beekeeping and Turtle Conservation
- Online course authoring training
- Deployment of a network management system to monitor all network services
- Deployed a professional reporting solution for PFnet

### *ICT Trainer*

**September 2004 to September 2005**

#### *General duties and responsibilities:*

- Build technical capacity within the People First Network team
- Help the technical team operate and maintain the PFnet rural network built with short radio waves communication, solar power and robust low power hardware technologies
- Work on community development through the use of our rural communication network
- Provide support to the PFnet on operating an Windows NT network and MS Exchange Server

#### *Significant achievements:*

- Facilitated participation to the “Talking Truth Project” for people living in remote areas
- Coordinated a small research initiative which was part of the United Nations funded project called “Peace Pac”
- Developed an automated logging, reporting and analysis system for the rural email network base station
- Developed a Microsoft Access training manual for Youth First Computer Centre (YFCC), a PFNet sister organisation
- Advised and coordinated the re-design of the YFCC’s training manuals
- Close collaboration with management to improve administrative work – proposal writing, letters, policies and procedures and preparation of maintenance of a business plan

PROFESSIONAL  
ASSOCIATIONS

- *Institute of Electrical and Electronics Engineers (IEEE)*
- *Association of Computing Machinery (ACM)*

## EDUCATION

### **Athabasca University**, Athabasca, Alberta CANADA

M.Sc., School of Computing & Information Systems , January 2011

- Thesis Topic: *Semantic Web and User Interfaces*
- Adviser: Dragan Gašević, Ph.D.
- Area of Study: Advanced Information Systems

Certificate, Centre for Innovative Management, June 2006

- Accounting for project management *with Honors*
- Area of Study: Accounting, Management, Economics, and Commercial Law.

### **Université de Moncton**, Moncton, New-Brunswick, CANADA

B.Eng., Département de Génie Électrique, January 2003

- Major: Electrical Engineering *with Honors*
- Minor: Mathematics
- Adviser: Mohsen Ghribi, Ph.D.
- Area of Study: Electrical, Electronic, Communications, Computing and Systems Engineering

## RESEARCH INTERESTS

Applied mathematics and statistics, intelligent systems, data and information science, natural language processing and advanced web user interfaces.

## PUBLICATIONS

Hachey, G., Instant OpenNMS Starter, *Packt Publishing*, 2013, <https://www.packtpub.com/networking>

Hachey, G., and D. Gašević. The Semantic Web and User Interface: A Systematic Mapping Study, *Semantic Web Journal*, 2012, <http://www.semantic-web-journal.net/sites/default/files/swj316.pdf>

## TECHNICAL SKILLS

Extensive hardware and software experience in networking and systems administration, software engineering and information and communication technologies.

Software Engineering:

- Specification Requirements (IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications)
- Software Design (Architectural structures, design patterns and frameworks)
- Software Construction (Agile programming with C, C++, C#/.NET, Java/JDK, JavaScript, Perl, PHP, Python, Common Lisp, Clojure(Script), Prolog, Julia, UNIX shell scripting, SQL)
- Software Testing (Unit, systems, integration testing and software verification)
- Software Maintenance (Migrate, improve, correct and retire software using TRAC)
- Configuration Management (Git, RCS, CVS, SVN)

Systems Administration:

- Protocols and standards (Most of the Open Systems Interconnection (OSI) model protocols)
- Networking and security (GnuPG, TrueCrypt, OpenSSH, OpenSSL, pfSense, Shorewall, Untangle Firewall, IPcop, Smoothwall, various anti-viruses, Nessus)
- Analysis, inspection and audit trail (Ethereal, Wireshark, TCPdump, ntopng, Snort, Tripwire, Syslog)
- Management and monitoring (Nagios, Cacti, MRTG, Zabbix, Zenoss, OpenNMS)
- Database systems (PostgreSQL, MySQL, SQLite, CouchDB, Redis, MongoDB)

- Web, mail and communication services (Apache, FTP, DNS, VNC, Spamassassin, Qmail, Postfix, Sendmail, Asterisk)
- Resource sharing (Samba, NFS)
- Backup and recovery (Amanda, Rsync, BackupPC, TestDisk, SystemRescueCD)
- Virtualisation (VMWare, VirtualBox, ProxMox, Xen)

Systems Development:

- Operating Systems (GNU/Debian and Red Hat based)
- Embedded Systems (OpenWRT)
- Real-time Systems (RT-Linux)

Office Applications:  $\text{T}_{\text{E}}\text{X}$  ( $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ ,  $\text{BIBT}_{\text{E}}\text{X}$ ), productivity software (for Windows, OS X, and GNU/Linux platforms), Emacs, GnuCash, MYOB, Simply Accounting

Operating Systems: Microsoft Windows family, Apple OS X, GNU/Linux, BSD family, and other UNIX variants

Science Applications and Programming Libraries:

- Visualisation and data analysis (MATLAB, Incanter, Matplotlib, Numpy, Julia)
- Geographic Information Systems (QGIS, MapInfo, ArcGIS)
- Health and Hospital Management Systems (GNU Health, DHIS2)

MATHEMATICAL EXPERTISE

Algebra and abstract algebra, statistics, trigonometry, geometry, combinatorics, calculus, multivariable calculus, linear algebra, differential equations, complex analysis, real analysis, topology, set theory and logic.

LANGUAGE SKILLS

Fluent in English, French, Solomon Islands Pidgin (now nuanced with close dialect Bislama) and Vanuatu Bislama.

REFERENCES AVAILABLE TO CONTACT

**Dr. Dragan Gašević** (e-mail: dragang@athabasca.ca; phone: +1 778 782.8010)

- Associate Professor, School of Computing and Information Systems, Athabasca University
- Dr. Gašević was my Masters degree adviser
- Contact for academic and research inquiries

**Dan McGarry** (e-mail: dmcgarry@imagicity.com; phone: +678 29842)

- Chief Technologist, Pacific Institute of Public Policy (PiPP)
- Mr. McGarry was my direct supervisor with Computer and Networking Services Ltd. and also engage my services as developers of bleeding edge (i.e.state-of-the-art) software development
- Contact for advanced technical inquiries

**David Leeming** (e-mail: david@leeming-consulting.com; phone: +677 747-6396)

- ICT for Development International Consultant, Pacific Legal Information Institute (PacLII)
- Mr. Leeming was my direct supervisor with the People First Network (PFNet) and the Distance Learning Centre Project (DLCF)
- Contact for development and cross cultural work inquiries