# Dr. Benoit Hudzia, PhD, MEng, MSc, (MBA)

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QUALIFICATIONS MBA Trinity College Dublin 2014 (expected)

PhD Comp Sci University College Dublin 2007

Master of Science Comp Sci University of Paris 6 2003 1st Hons Master of Engineering EECS Ecole d'ingenieur EFREI 2002 1st Hons

Current Position Stratoscale

Stratoscale Ltd. Israel

Head of Irish operation, Cloud/System Architect

November 2013 - Now Cloud/System

Architect working on designing the next generation cloud technology as well as running the Irish operations for Stratoscale (http://www.stratoscale.com/).

### **Duties:**

- Research, Design, Develops and Evaluate new cloud technology
- Build, Manage, Lead, and Motivate (distributed) teams, situations and technologies
- Identifying, developing and directing the implementation of business strategy.
- Cultivating the companies reputation in the market & with customers & suppliers.
- Involved in planning & organising the organisation's activities to achieve targets.
- Liaising with officials of government departments and regulatory bodies.
- Managing multi-disciplined teams and resolving any conflicting priorities.
- Developing business plans and preparing comprehensive business reports.
- Reviewing, refining and developing the strategy and direction of the company.
- Building client relationships that result in revenue and profitability growth.
- Responsible for the companies health and safety and legislative adherence.
- Keeping control of business expenditure, ensuring it's within agreed budgets.

# **Skills:**

- Earned a reputation for designing and delivering cloud architecture and deployment strategies that mitigate risk while meeting infrastructure, employee, customer and budgetary needs.
- Demonstrable mastery of cloud computing concepts and the ability to articulate these concepts to technical and non-technical audiences.
- Published articles, white-papers, and social media content focused on cloud computing, application architecture for the cloud, or cloud computing best practices.
- Excellent communication, interpersonal, analytical and presentation skills.

Previous Professional HANA Enterprise Cloud

TIP HANA Cloud Computing , SAP UK Limited.

Experience Cloud / System Architect

March 2013 - Now

Cloud Architect working on SAP HANA Enterprise Cloud (http://www.sap.com/pc/tech/in-memory-computing-software/hana-enterprise-cloud/index.html). In charge of designing and delivering next generation managed cloud platform with SAP In-Memory Database at its core which includes:

- Successfully designed and delivered cloud solutions for major SAP customers such as Colgate, JPMorgan Chase , SwissCom and Nestle.
- More than 5 years experience with SAP Technologies and other cloud technologies (SaaS-PaaS-IaaS).

### **Hecatonchire Project**

SAP Next Business and Technology, SAP UK Limited.

Senior Researcher, Project Leader - Architect

January, 2011 - March 2013

Project lead of 15 persons UK-US-IL team for SAP aiming to design the next generation cloud infrastructure of the company (http://www.hecatonchire.com). The project aims to bring together the flexibility of virtualization, cloud and high performance computing in order to break free of current cloud limitations. It will deliver a framework that breaks free of current limitations imposed by current virtualization and physical server by enabling true flexibility in terms of performance and resource management life cycle. As a result it will enable true cloud paradigm through the datacenter resource disaggregation liberating the PaaS and SaaS from their inherent underlying limitations.

# Virtex Project SAP Research CEC Belfast, SAP UK Limited.

Senior Researcher, Project Leader

January, 2008 - 2011

Project Leader of a 1.5M £project: Virtex. This project aims at designing the architecture & development of an Adaptive SAP Service Utility based on shared virtualized infrastructure. Such utility can enable the delivery of hosted SAP applications. The project is composed of 1 project lead, 3 researcher, 2 Phd student and intern(s). I am also technical lead for the EU project Reservoir on federated cloud computing (IaaS). I was lead architect for SAP Business Web project and most specifically its cloud hosting (IaaS, PaaS) aspect. Researcher for Optimis, Bonefire and Cumulonimbo EU FP7 research project.

### Nextgrid and Virtex Project ramp up SAP Research CEC Belfast, SAP UK Limited.

Researcher

June, 2007 - January 2008

Researcher in the NextGRID project: this project seeks architectural solutions that streamline all aspects of Grid operation- installation and maintenance of the infrastructure, development and deployment of Grid applications, user orchestration of the resulting resources, and operation of business models and processes through which the use of Grid technology can be made economically viable.

### **Startup** DiPack, Dublin, Ireland.

Startup Creator

June, 2006 - January 2007

Creation of a startup specializing in novel digital goods, distribution and encryption Technology. Went through the initial phase of startup creation: business plan , market study, prototyping, sought venture funding.

### Internship at Laboratoire de Recherche en Informatique (L.R.I), University of Paris 11, Orsay, France

Summer researcher

May, 2003 - September, 2003

Research, experimentations at L.R.I. (www.lri.fr) in the field of large distributed systems for scientific computations (XtremWeb Project). In charge of implementing a multicast version of MPI under the supervision of Professor Serge Petiton.

CVF, Paris, France

System administrator

June, 2002 - September, 2002

System administrator for CVF (www.cvf.fr)a subsidiary of France Telecom. In charge of installing SAN/NAS technology for their web hosting operations.

# University of Mary, Bismarck (ND), USA

System administrator

October, 2001 - June, 2002

System administrator for IT department of University of Mary. In charge of maintaining servers and workstation installation. Deployed a distributed proxy services across the university campus and a filtering / throttling systems to limit P2P bandwidth consumption explosion.

#### Osiatis, Paris, France

IT Engineer Internship

April, 2001 - August, 2001

Development and conception of applications for a technical support level 2 for Vizzavi (www.vizzavi.com, web portal for SFR - Vivendi universal, now Vodafone France) by Osiatis (C, Perl, Apache, PHP, Imap, firewalls, Linux).

# M2IC, Paris, France

IT Engineer

October, 2000 - March, 2001

Consultant specialised in network security: Linux, LDAP, SQL, XML, PHP, networking, firewalls.

Management: Strategy, Scrum, Team Management and Project Management Certifications, HR.

**Language:** French: Mother tongue; English: Fluent; Spanish: Scholar; Italian: Notion; Chinese: Notion; Japanese: Notion

**Computer Skills:** Proficient in the major programming languages, web, network, open source and database technologies, operating systems and desktop applications.

- Cloud / Virtualization: Amazon AWS, OpenStack, OpenNebula, HyperV , Vmware, KVM, Xen, Rackspace, Azure
- Languages: C, C++, c#, Fortran, Perl, Python, Pascal, JAVA, PHP, XML, SOAP, Web services / REST,SQL.
- Applications: SAP HANA, SAP ERP, SAP Tech LaTeX, Office suite, Mysql, Apache, Eclipse, ViM, SSH, Squid, Sendmail / exim, DNS, NFS / NIS, iSCSI, LDAP, UML, Checkpoint, Splunk, .
- Development framework and Tools: GIT, JIRA, Enterprise Service Bus (AMQP, ACtiveMQ, etc.), SAP XI, Spring, Eclipse Modeling Framework, J2EE (Glassfish, JBoss), CORBA, MPI parallel processing library, Globus, OSGI, Linux Kernel, Hadoop, Boost, RDMA / IBVerbs, linux kernel and Device Drivers.
- Operating Systems: Unix/Linux, Windows.
- Networking: TCP, UDP, IP, Ethernet, Infiniband, Router VPN, Firewall, iWARP, RDMA.
- Other: P2P, distributed fault tolerant systems, Grid, High Performance Computing, Cluster, Blade, Storage System

**Mathematics:** Number Theory, Linear Algebra, Abstract Algebra, Real and Complex Analysis, Numerical Analysis, Graph Theory and Topology.

# EDUCATION

SKILLS

# Trinity College Dublin, Dublin, Ireland

MBA, September 2012-2014;

# University College Dublin, Dublin, Ireland

Ph.D. Computer Science, April 2004-2007; Dissertation Topic: "Hierarchical Topology for P2P Based Grid MiddleWare"; Advisor: Dr. M-Tahar Kechadi

### University of Paris VI, Paris, France

D.E.A., Systemes Informatiques Repartis, September 2003 (Master of Science in Distributed and Heterogenous Computing Systems)

### Ecole Francaise d'Electronique et d'Informatique (EFREI), Paris, France

Diplome d'Ingenieur,Informatique et Electronique, September 2002 (Master of Engineering in Electronics and Computer Science)

Exchange Student (Honor Roll), University of Mary, Bismarck, ND USA, August 2001- August 2002

#### **OTHER**

**Patents:** Ten+ patents filed since 2008 at the USPTO, three other patents currently being submitted, topics: virtualization, cloud, OS, distributed systems and CEP.

**Open Source Contribution:** I have personally driven contribution and written code for Qemu–KVM and Linux Kernel. I was leading the Hecatonchire Open Source Project (http://www.hecatonchire.com) **Funding Acquisition** I have successfully secured funding from European FP7 framework (IP and STREP) and local funding agency for SAP research projects: Orbit, Optimis, Precise, BoneFire, Intel-SAP Collab

**Membership** 

IEEE and ACM member.

INTERESTS

**Professional:** Cloud Computing, High Performance Computing, P2P systems, RDMA, Distributed Shared memory, Cryptography, Networking, Asynchronous Systems, Distributed and Heterogeneous Environments, Grid System, Large Scale system, Stream Computing, Complex Event Processing, Quantitative analytics, Mathematical modeling, Algorithmic trading.

**Personnal**: skiing, swimming (Competition level), film, music, travel, gym

SELECTED PUBLICATIONS

Benoit Hudzia: "Virtualized Memory Scale-Out for SAP HANA", In:" SAP Virtualization and Cloud Week" Palo Alto, April 2013, http://www.sapteched.com/sapvweek/presentation/TECH28/TECH28.pdf.

Benoit Hudzia, Roei Tell, Peter Izsak, Aidan Shribman, Steve Walsh: "Leveraging Memory Mirroring for Transparent Memory Scale Out with Zero Downtime Failover", In:" IEEE - ISCC 2013" Split- Croatia, July 2013.

Benoit Hudzia, Stephen Dawson, Alan Hay: "Dynamic Adaptations for Network Delays during Complex Event Processing", Patent , USPTO 2013

Benoit Hudzia: "Memory Cloud: The Hecatonchire Project", In: Linuxcon - KVM forum Barcelona November 2012, http://www.slideshare.net/blopeur/hecatonchire-kvm-forum2012benoithudzia.

Benoit Hudzia, Aidan Shribman: "The lego Cloud", In: "SAP Virtualization and Cloud Week" Palo Alto, 2012 http://www.sapteched.com/sapvweek/presentation/TRND04/TRND04.pdf.

Benoit Hudzia, Jonathan Sinclair And Maik Lindner, "Deploying and running enterprise grade applications in Federated Cloud", In: "Achieving Federated and Self-Manageable Cloud Infrastructures: Theory and Practice" In IGI Global, 2011.

Benoit Hudzia, Maik Lindner, Alan Stewart, Terry Harmer, Jonathan Sinclair, "Architecture for compliance analysis of distributed service based systems", ACM CLOSER 2011, Noordwijkerhout, The Netherlands.

Jonathan Sinclair, Benoit Hudzia, Maik Lindner, Alan Stewart and Terry Harmer. "Compliance Auditing in Future Web-based Infrastructures", ACM Web Science 2011 Koblenz, Germany.

Peter Svard, Benoit Hudzia: "Evaluation of delta compression techniques for efficient Live Migration of Large Virtual Machines", The 2011 ACM SIGPLAN/SIGOPS International Conference on Virtual Execution Environments (VEE 2011)

Ana Juan Ferrer, Francisco Hernndez, Johan Tordsson, Erik Elmroth, Csilla Zsigri, Ral Sirvent, Jordi Guitart, Rosa M. Badia, Karim Djemame, Wolfgang Ziegler, Theo Dimitrakos, Srijith K. Nair, George Kousiouris, Kleopatra Konstanteli, Theodora Varvarigou, Benoit Hudzia, Alexander Kipp, Stefan Wesner, Marcelo Corrales, Nikolaus Forg, Tabassum Sharif and Craig Sheridan; "OPTIMIS: a Holistic Approach to Cloud Service Provisioning, Utility and Cloud Computing" (UCC 2010)

Benoit Hudzia, Hui Li, Tariq Ellahi, Maik Lindner, Philip Robinson, Book Chapter: "Complex Enterprise software systems in the cloud", Book: "Cloud Computing: Principles and Paradigms", Publisher: Wiley, New York, USA. 2010

Benoit Hudzia, Stuart hacking: "Technique for improving Live Migration process", Patent, UPSTO, 2009

B. Hudzia, S. hacking, "Improving Live Migration process of Large Enterprise Applications" VTDC 2009 - The 3rd International Workshop on Virtualization Technologies in Distributed Computing, June 15, 2009, in Barcelona, Spain

Benoit Hudzia, Phillipe Robinson: "Flexible appliance hosting with coordination of deployment, licensing, and configuration", Patent, USPTO 2008