

# Michael John Dilworth

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## Objectives

The professional objective is to secure an extremely challenging senior role which demands high levels of technical and business acumen. The role should be supported by a forward thinking and progressive organisation which operates as a meritocracy.

## Summary

A highly skilled, experienced and motivated senior professional adept at solving problems and delivering real world solutions within the fields of Software Development, Systems, and Networks. Such cross functional experience has lead to implementing mission critical, full lifecycle, solutions within the Internet, Telecommunications, and Financial Service industries. Moreover, coupled with a hands on approach and can do attitude is the ability to build and mentor the technical and operational teams necessary to sustain and further develop technological investments and thereby provide business continuity. As a skilled communicator, at all organisational levels, with the ability to broker cross functional support and commitments, projects are managed and delivered on time and within budget. Finally, there is a passionate commitment to attaining the highest levels of professional and personal excellence.

## Professional Experience

Sept 2007 to date. **Head of Systems and Infrastructure, Upstream S.A.**

Upstream is an international mobile media marketing company operating within the telecommunications industry. Upstream specialises in Super Promotions and Brand awareness implemented using mobile messaging. It is a dynamic and fast paced 24x7 environment where project execution has to be extremely rapid and the solution is mission critical.

Upstream had major architectural systems and networking limitations which prevented the rapid delivery and dynamic operation of multiple simultaneous projects. I solved these issues by designing and implementing carrier grade data centre systems and networking infrastructure using state of art methodologies and practices.

During periods of rapid organisational expansion Upstream's corporate IT infrastructure and management failed to provide the required support. I addressed all failings in areas such as infrastructure, purchasing, telecommunications, licensing, structure, and facilities to enable Upstream to rapidly expand in size, both locally and internationally, without any negative impacts on its ability to execute projects.

July 2002 to Sept 2007. **Networking and Development Manager, WIND Hellas Telecommunications**

WIND Hellas is a leading telecommunications provider in Greece. Working in value added services my strong and wide ranging technical skills were employed in the management, design, development, integration and performance tuning of software, services, system platforms and IP networks and in the management and coaching of technical personnel. I pioneered the adoption of best of breed technologies, methodologies and management techniques into a traditional telecoms environment. These strategies were rewarded through improved market responsiveness, innovative service offerings and reduced CAPEX and OPEX.

WIND Hellas had no IP data network for its Value Added Services (VAS). Furthermore, VAS (SMSC, WAP, ISP) were not collocated which meant inherent service synergies could not be utilised. For WIND Hellas I designed and built IP networks at multiple locations which were then interconnected using WAN technologies. I designed the WAN to also interconnect with WIND's ISP business, which I managed, and the Athens Internet Exchange. This large scale and highly redundant carrier grade IP network solution became a core business enabler, most notably for SMS Application services, WAP and 3G.

WIND Hellas did not operate a VAS application platform. This deficiency resulted in an inability to fully maximise its VAS capabilities. This issue was especially acute for SMS services. To overcome this problem, I designed and built **SASK (Sms Application Services using Kannel)**. SASK is a multipurpose application platform used to run in-house developed VAS services and to operate as an application gateway for external service providers and other telecom platforms within WIND. The SASK platform enabled WIND to aggressively launch new SMS based services with advanced features such as real time billing and provisioning.

October 1999 to June 2002, **Systems Architect, Ramnet S.A**

Ramnet S.A. (part of Lambrakis Press) owns and operates Greece's premier Internet portal ([www.in.gr](http://www.in.gr)). At Ramnet I was actively involved with the launch and subsequent operation of Greece's premier Internet Portal [www.in.gr](http://www.in.gr) (+40 million pages views per month). This involvement ranged from designing and developing key areas of the portal site to the building of a highly redundant and scalable data centre and its subsequent 24x7 operation and administration. Of particular interest was my involvement in providing real time stock market data to 3000 registered users.

January 1996 to September 1999, **Freelance IT Consultant, Athens, Greece**

As a freelance IT consultant I undertook various projects for three distinct Greek companies.

**Interaxon** (now ITWay) is a leading Value Added Reseller (VAR) for clustering, storage and security technologies in Greece and the Balkans. At Interaxon I was engaged in pre sales technical activities at customer sites and trade shows. I also installed clustering and storage solutions for leading Greek banks and businesses.

**Elval** is the Greek manufacture of flat rolled aluminium products with a capacity in excess of 200K tonnes/year. For Elval's exports department I designed and implemented a unified messaging and workflow solution based on Microsoft's Exchange and SQL servers.

**Mantis** is a leading software house specialising in logistic and warehouse solutions. I developed Mantis' Internet technologies department by coaching developers and establishing their internet presence.

September 1993 to December 1995, **Information Science Researcher, City University, London**

Within the department of Information Science I undertook various tutorial and lecturing roles concerning Information Science and Information Systems and Technology MSc courses. I also conducted doctoral research concerning information use within organisations and its impacts upon organisational behaviour. This research resulted in the development of an Organisational Information Resource System model of information processing theory. As part of my research activities I development a web based computer supported co-operative work system called Open Team Support.

September 1983 to August 1991, **Electro-Mechanical Engineer. Royal Mail Letters.**

Upon the early and successful completion of an electro-mechanical engineering apprenticeship with the British Post Office I undertook faulting, maintenance, and commissioning of mechanised postal sorting equipment and associated building services. During this employment I continued my studies and gained sponsorship for attending university to study for a BSc in Industrial Management.

## Education

<b>1988-1992</b>	<b><i>The Nottingham Trent University.</i></b> BSc (Hons.) Industrial Management.	1st Class Honours
<b>1986-1988</b>	<b><i>Brighton College of Technology.</i></b> B'Tec HNC Engineering.	Merits and Distinctions.
<b>1983-1986</b>	<b><i>West Ham Technical College, London.</i></b> B'Tec ONC Engineering.	Merits and Distinctions.
<b>1981-1983</b>	<b><i>Steyning Grammar School, W. Sussex.</i></b> 1 GCE A Level and 5 GCE O Levels.	
<b>1977-1981</b>	<b><i>Cross Hall High School, Ormskirk, Lancashire.</i></b>	

## Technical Skills

I possess a wide range of skills and experience predominantly within the three disciplines of Software, Systems and Network Engineering. These core skills are further augmented by my initial training as an Electro-Mechanical Engineering and it is this combined technical expertise and the resultant synergy which enables me to design, build and deliver complete solutions based on best of breed technologies and practices. The following sections briefly

iterate some concrete examples of how I have utilised my skills and experience in real world situations.

### **Data Centres and Systems**

I have designed and built several IT data centre infrastructures. These have ranged in size from multi floor, multi building configurations for mobile operators, to mid size single room setups for medium sized organisations, and also down to multiple rack scenarios within managed hosting environments for small to medium sized companies. At all these levels I am acutely aware of the many and varied factors, such as power, air conditioning, rack placement, building services, etc. which are involved in delivering the “right sized” solution for the particular environment, meeting all aspects for high availability, redundancy, scalability, performance and economic justification.

Generally this type of work involves designing, purchasing, installing, configuring and performance tuning the full spectrum of IT infrastructure; Racks, Networking, Server Farms, Server Data layer, Storage Networks, Storage Subsystems, Backup Devices and Backup servers. I am fortunate to have had hands on experience in all these areas.

### **Solution Provider**

At the solution level I delivered a mission critical SMS Application Platform for use with high volume and premium based value added services. The platform handled approximately one million SMS per day which were spread over a variety of different services each with unique requirements. Due to the design and use of templated business logic new services could be brought to market at an accelerated rate, thereby increasing the company’s competitive advantage. The solution utilises low cost Intel based platforms running the Linux operating system with redundancy implemented through farming and clustering. Many open source projects including the likes of Tomcat, Kannel, OpenLDAP, Sendmail, MySQL and Apache were used in conjunction with custom applications developed in C/C++, Java and PHP to create a highly flexible and scalable platform. Furthermore, this platform has been tightly integrated into exiting Telco infrastructure (OSS and BSS) to provide for features such as real time billing and provisioning.

### **Networking**

For networking I have been responsible for the design and implementation of multiple LAN infrastructures which have been interconnected through redundant WAN links. At the LAN level I design highly secure and scalable switched VLAN typologies utilizing multiple DMZs, firewalls and Content Farming Services. At the WAN level I have used a variety of interconnection strategies ranging from Metro Ethernet, STM1 and channalised E1 (G703 and X21). For International and domestics interconnection requirements I have used tier 1 providers and common internet exchange points such as the Athens Internet eXchange (AIX). Furthermore, during the course of my career I have also managed Local Internet Registry (LIR) responsibilities. For all configurations I continually strived to improve the security of the network architecture and made significant advances through the implementation of a Self Defending Network using Cisco technologies for traffic abnormality detection, intrusion detection, DDoS and Cisco Security Monitoring, Analysis and Response System (MARS).

### **Virtualisation**

Exposure to virtualisation technologies has seen a focus on implementing solutions predominately using VMware technologies. For example, using VMWare Infrastructure, with its VMotion, DRS and HA, and Virtual Desktop Infrastructure I was able to both improve

the utilisation, flexibility, and responsiveness to market within a mixed UNIX and Windows environment.

### **Software Engineering**

My software development interests and experience have produced 5 commercial software products for e-nspect and Freightmetrics plus many other internally developed solutions as part of my employments during the course of my career. My development experience is broad and wide ranging on both UNIX and Windows environments. Many of these products and solutions incorporate sophisticated RDBMS where my database skills in design, normalisation, stored procedures, views, and dynamic SQL have been widely used.

For WIND Hellas I implemented a Service Orientated Architecture (SOA) for the provision of VAS services. This software architecture was based on BEA Weblogic and Aqualogic and was augmented with the use of Sun Microsystem's Enterprise Directory Server and Oracle's 10gR2 RDBMS RAC. The chosen hardware implementation made use of Cisco Content switches and high powered rack servers with no single point of failure for carrier grade requirements. Together with this new software and hardware infrastructure I also pioneered a software development methodology based on the Agile Unified Process, which represented a flexible combination of Extreme Programming and the more traditional Rational Unified Process to encompass the full product life cycle. As part of this process I made substantial investments in tools most notably IBM's Rational range (e.g. ClearCase, Method Composer, SoDA, Portfolio Manager, RequisitePro, ), Parasoft (e.g. SOATest, WebKing), Atlassian JIRA Enterprise Edition and Sybase's Power Designer for data modelling (e.g. UML and Business Process Modelling). This project represented a major shift in WIND's software development paradigm and lead to the wide scale adoption of mainstream enterprise class techniques. The overall aim was to improve development efficiency, quality, manageability, accountability and importantly maintain business continuity.

I am also a proponent of the COConstructive Cost MOdel II (COCOMO) for software cost estimation which I have found to be very successful in accurately estimating the time and effort required for software development projects.

### **Key Word Summary by Discipline**

In an attempt to provide a further insight to my hands on skills the following sections detail some of the "key words" which I have certain experience and knowledge of.

#### **Software Engineering**

Programming Languages : C/C++, Java, VB, PHP, Perl, JavaScript, SQL, HTML, Shell Scripts  
Techniques: DCOM, COM, STL, ATL, WTL, MFC, MAPI, OLEDB, ADSI, LDAP, J2EE, ASP.NET  
Methodologies: COCOMO II, Agile, Scrum, Unified.

#### **Systems Engineering**

My system engineering skills are wide ranging and include both the hardware and software components of IT systems. I have performed installation, configuration, performance tuning and administration of a wide range of systems and platforms. Furthermore, I have substantial experience undertaking low level system tasks such as building custom operating system kernels and implementing code level performance enhancements to application services. I also have experience with storage subsystems such as SAN, NAs and direct attached SCSI. For example, I manage and operate SANs from IBM and EMC and I am adept at undertaking tasks such as LUN Masking and SAN Zoning.

General areas of expertise can be summarised as:

- Servers: Sun SPARC, HP PA-RISC, HP Itanium, DELL Intel, HP Intel, IBM Intel.
- Operating Systems: HP-UX, AIX, Solaris, Linux, Windows Servers (NT, 2000, 2003, 2008)
- Storage: IBM DS4700, EMC Clariion, Brocade, direct attached SCSI, iSCSI, Network Appliance, NAS, SAN, RAID, SAN Zoning, LUN Masking
- Backup: Robotic Tape Libraries, HP Data Protector, Legato Networker
- Clustering: Sun Cluster, HP Service Guard, Qualix, Microsoft Cluster Service
- Generic Application Services: DNS, HTTP, FTP, SMTP, LDAP, WAP, Streaming, SMS, MMS, OTA, J2EE, NFS, SAMBA, SMPP, SMTP, POP3, IMAP4, etc. etc.
- RDBMS: Oracle, MS SQL, MySQL, Berkley DB, Postgres

### **Network Engineering**

Network engineering skills have been used in the design and delivery of secure and scalable local and wide area networks.

Areas and key points of interest are as follows:

- Switched VLAN implementation for local area networks.
- GPRS, 3G (UMTS)
- interfaces: channelised unbalance E1, STM1, E3, Ethernet, Metro-Ethernet
- Routers: Cisco 7606, 7206VXR, 3660, 3640, 2921
- Switches : Cisco 6509, 5500, 4506, 3750, 3500, 2900
- Firewalls: Cisco ASA, Cisco PIX, CheckPoint, Multi DMZ topology implementations.
- Farming: Cisco Content Switches, F5 Big IP, Cisco Localdirectors
- Monitoring: MRTG, NetFlows, and Cisco Works.
- Self Defending: Cisco IDS, IDP, Traffic Anomaly Detection, MARS
- Routing Protocols: BGP4, EBGp, IBGP, OSPF

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### **Management Skills**

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In addition to the core technical skills iterated above I have extensive general management experience. For Upstream, Ramnet and WIND Hellas I built the teams required to undertake the development, integration, management and operation of internet and value added services within a fully redundant data centre environment. This represents the full life cycle of requirements from hiring, firing, mentoring, training, evaluating and managing individuals and also the structures in which they operate.

I have also built up extensive experience with the initiation, management and operation of outsourced resources and with their assimilation and collaboration with organisational units. Experience within this area is wide ranging and, for example, has encompassed the following activities: contract negotiation, SLA definition, implementation and monitoring. These types of tasks and skills are especially useful when undertaking project management roles.

Finally, I have acquired considerable experience and skill in the processes of procurement and the management of budgets. For varying employers I have been responsible for a wide range of budgets ranging from 100 thousand to over 1 million Euros. Each of which had its own particular and important characteristics and organisational impacts.

## Interests

### **Automated FOREX Trading**

Using the MQ4 programming language I have written several Expert Advisors for the Meta Trader platform which are used to automate trading strategies. The expert advisors utilize the full range of FOREX trading techniques, such as Trailing Stop Losses, Limit Orders, Scalping and Hedging.

### **Shipping Derivatives - Freightmetrics**

In 2004 I assisted FreightMetrics LTD (<http://www.freightmetrics.com>), an early start-up venture which specialises in Risk Management and derivatives for the shipping industry. For this company I designed and developed several commercial software products and regularly prepared and presented technical proposals for turnkey solutions as part of the RFI and RFP process.

For Freightmetrics I developed an Options Pricing Calculator for Forward Freight Derivatives. The main aim of the calculator was to arrive at a fair price for a forward freight agreement option. The calculator implements both the Turnbull & Wakeman and Monte Carlo methodologies in their native mode and in "Freightmetric" modified versions that utilize the forward curve. In addition to this core functionality the calculator also provides:

- Forward curve builder
- Volatility Calculator
- Correlation Calculator
- Option Market Maker
- Zero Cost Collar Calculator
- Participating forward Calculator
- Synthetic Forward Calculator

In order to minimize the learning curve for end users the calculator was developed as an extension of Microsoft's Excel spreadsheet. Furthermore, the calculator's core formula have been exposed via an API to enable advance Excel users and other programmers to create and develop their own custom solutions. As the calculator's core formula have been implemented using the high performance C/C++ programming language inherent benefits are derived in both speed of execution and securing intellectual property.

### **Deal Position System**

Freightmetric's deal position system is an in-house developed client server application based on Microsoft's SQL Server with a custom built client interface written in C/C++. The Deal Positioning System is a multi user environment where a shipping company can manage both its physical and paper positions in the market.

## **e-nspect Consulting**

In January 1997 I launched e-nspect Software Consultancy (<http://www.e-nspect.com>) as an outlet to my interests in software development. The primary operation of e-nspect is the provision of real time message monitoring software for Microsoft's Exchange Server. Other consultancy roles have also been undertaken concerning web site development and Internet related programming.