

# Curriculum Vitae

## David John Marples (Dave)



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### Personal Details

|                        |                               |                   |                      |
|------------------------|-------------------------------|-------------------|----------------------|
| <b>Date of Birth:</b>  | 4 <sup>th</sup> December 1967 | <b>Email:</b>     | dave@marples.net     |
| <b>Nationality:</b>    | British                       | <b>Telephone:</b> | +44 (0) 1623 428 689 |
| <b>Last CV Update:</b> | 28 <sup>th</sup> July 2010    | <b>Facsimile:</b> | +44 (0) 7005 805 807 |

### Profile

A unique, experienced, engineer with a thorough academic background, excellent market awareness and remarkable communications skills. Proven ability to both lead technical teams and to work independently. Years of experience in light current digital electronics and software gained in the telecommunications industry with a particular focus on telecommunication services, networks and protocols which is now being applied in the automotive segment. Able to operate effectively at both marketing and strategic management levels while still remaining competent as a practical engineer in both academic and commercial environments.

### Skillset

|                               |                             |                                    |
|-------------------------------|-----------------------------|------------------------------------|
| Board Experience              | Product Specification       | Real-time Software                 |
| International Relationships   | Communication Skills        | Windows Low Level Coding           |
| Presentation Skills           | UNIX Systems Administration | Embedded Systems                   |
| Team Leading                  | Practical Engineering       | Digital Hardware                   |
| Market Understanding          | PABX Software               | Design for EMC                     |
| Network Implementation        | Communication Protocols     | EMC Testing                        |
| Interpersonal Relationships   | C and C++ Programming       | International Approvals            |
| Intercompany Liaison          | Technical Due Diligence     | Internet Architectural Design      |
| Internet Protocols            | Appliance Design            | Call Agents and Internet Telephony |
| Automotive Systems            | Remote Data Analysis        | Digital Content and Media          |
| Intelligent Transport Systems | Weigh in Motion             | Systems Design                     |
| Vehicle charging and tolling  | Standards development       | Business Development               |

### Qualifications and Appointments

|                  |  |
|------------------|--|
| <b>2003-</b>     | <b>Fellow of the Open Services Gateway Initiative Alliance (OSGiA)</b>   |
| <b>2001-</b>     | <b>University of Stirling</b><br>Honorary Professor of Telecommunications, Dept. of Computing Science and Mathematics.   |
| <b>1993-2000</b> | <b>University of Strathclyde</b><br>Glasgow, Scotland.<br>Ph.D. in Communications Division of Electrical and Electronic Engineering Department.                                    |
| <b>1992-</b>     | <b>Industrial Fellow of the Royal Commission for the Exhibition of 1851</b>  |
| <b>1990-1991</b> | <b>University of Bradford</b><br>Bradford, West Yorkshire.<br>M.Eng. in Electronic, Communication and Computer Engineering.  |
| <b>1986-1990</b> | <b>University of Bradford</b><br>Bradford, West Yorkshire.<br>B.Eng. with 1 <sup>st</sup> Class Honours. Enhanced and Extended Electronic, Communication and Computer Engineering. |

## Recent Professional Representation

- Team member of PT20, developing ISO 17575, the Road Charging Standard. Responsibility for communications (Part 2).
- General Chair, CCNC 2008, 10-12 Jan 2008, Las Vegas, NV
- Keynote speaker, *The Convergence of Telecommunications, Networking and Broadcasting*, Liverpool JMU, 28-29 June 2007
- Steering and Program Committee Member, Demonstrations Chair, CCNC 2007
- Globecom 2006 Technical Program Committee Member, Bandwidth on Demand.
- Reviewer: ETRI Journal, IEEE Transactions on Systems, Man and Cybernetics (SMC-C), International Conference on Feature Interactions (ICFI), The Journal of Computer Networks (COMNET)
- Invited Speaker, Agent Technology Conference, Stockholm, Sweden, 2006
- Core Architecture Team, EU Co-operative Vehicle Information Systems (CVIS) Project
- Steering and Program Committee Member, Session Chair, CCNC 2006
- Steering and Program Committee Member, Business Sessions Chair, CCNC 2005
- Chief Architect, Global System for Telematics, EU Framework 6 Integrated Project
- Steering and Program Committee Member, Session Chair and Panel Member CCNC 2004
- Program Committee Member, PERCOM 2004
- OSGi Fellow
- Program Committee Member, Feature Interaction Workshop, Ottawa, Canada, June 11-13, 2003.
- Executive Director of OSGi 2001-2003.
- Technical Editor of IEEE Communications Magazine In-home networking series (ongoing).
- Business Applications Session Chair at ICC 2002, New York, USA.
- Member of Industrial Advisory Board to Lancaster University (ongoing).
- Scientific Committee Member, SIP'2001, SIP'2002. Paris, France.
- Session Chair, Forum'2000, *Empowering the Internet @Home, In-Home Connections: Networking in the Home*, <http://www.parksassociates.com/events/forum2000/F2000index.html>.
- OSGi Architecture Chair (till Nov 2001), See <http://www.osgi.org/>.
- Telcordia Representative, JCP Mobile Information Device Profile (MIDP), 1999-2000 See <http://java.sun.com/products/midp/>.
- Telcordia Representative, JCP JAIN Parlay 1999-2000, See <http://java.sun.com/products/jain/overview.html>.
- Session Chair, Feature Interaction Workshop, *Emerging Architectures*, May 17<sup>th</sup>-19<sup>th</sup>, 2000, Glasgow, Scotland.
- Invited Speaker, Fireworks, *Workshop on Language Constructs for Describing Features*, May 15<sup>th</sup>-16<sup>th</sup> 2000, Glasgow, Scotland.
- Invited Speaker, FORCES, *IP Appliance Research – An Overview*, April 12<sup>th</sup>, 2000.
- Session Chair, Feature Interaction Workshop, *Industrial Practices*, Sept 29<sup>th</sup>-Oct 1<sup>st</sup> 1998, Lund, Sweden.
- Industrial Fellow of the Royal Commission for the Exhibition of 1851.
- Member of Institute of Electrical Engineering. Membership number 21598505.

## Publications

- W. Roggekamp, D. Marples, *Unbroken Service : Upgrading Westerscheldetunnel's Tolling System*, ITS International, May/June 2010, Pg. 44-45.
- D. Marples (ed.), *ISA – it's on UK Streets*, TEC, Sept 2009, Pg. 347-356.
- A. Rooke, D. Marples, *Slow to chide, quicker to praise : Addressing automated enforcement*, ITS International, July/August 2009, Pg. 36-37.
- D. Marples, *We need a leader : ITS Social Acceptability*, Thinking Highways, Jun 2009, Pg. 56-57.
- D. Marples, *One size fits all : Re-purposable automotive platforms*, ITS International, May/June 2009, Pg. 34-35.
- P.H. van Koningsbruggen, G. Withagen, D. Marples, R. Gilbers, *A novel approach to network wide traffic management*, TEC, April 2009, Pg. 178-180.
- D. Marples, *These goalposts are not for moving*, ETC etc., Dec 2008, Pg. 54-56.
- D. Marples, *Lets look at it another way : Applications to accompany toll charging devices*, Thinking Highways, Nov 2008, Pg. 56-58.
- D. Marples, *Beyond Toll Charging : The Development of a Generic Automotive Platform*, ITS World Congress, NY, 16-20 November 2008
- D. Marples, *Enabling Road Charging Through Value Added Services*, ITS European Congress, Geneva, 4-6 June 2008
- D. Marples, *Thoughts on Road Charging*, ITS-UK, 26<sup>th</sup> September 2007
- M. Dukker, D. Marples, *Practical Experience and the next generation of WIM*, ICWIM 5, Paris 19-22 May 2008 in ICWIM, Bernard Jacob, ISBN 978-1-84821-059-2
- B. Falchuk, D. Gorton, D. Marples, *Enabling revenue generating digital content distribution for telecom carriers*, for publication in Journal of Multimedia, ISSN 1796-2048, 2006.
- B. Falchuk, D. Marples, *Ontology and Application to Improve Dynamic Bindings in Mobile Distributed Systems*, Wireless Internet Conference, WICON 2006
- J. Kong, L-J Chen, M. Jakobsson, S. Moyer, D. Marples, M. Gerla, *A Digital content mediator (DCM) approach to implementing legitimate and secure p2p online transactions*, ICC 2006, Istanbul, Turkey
- B. Falchuk, D. Gorton, D. Marples, *Enabling Revenue Generating Digital Content Distribution for Telecom Carriers*, CCNC 2006
- D. Marples and S. Moyer, *Home Networking and Appliances*, in D. J. Cook and S. Das, *Smart Environments: Technologies, Protocols and Applications*, Wiley, 2004.
- K. Tuner, E. Magill, D. Marples, *Service Provision: Technologies for Next Generation Communications*, Wiley, ISBN 0-470-85066-3, May 2004.
- M. Kolberg, E. Magill, D. Marples, S. Tsang, *Feature Interactions in Services for Internet Personal Appliances*, In Proc. Of ICC 2002, 28<sup>th</sup> April-2<sup>nd</sup> May 2002.
- S. Moyer, D. Marples, A. Ghosh, *Service Portability of Networked Appliances*, IEEE Communications Magazine, February 2002.
- Dave Marples, Peter Kriens, *The Open Services Gateway Initiative, an Introductory Overview*, IEEE Communications Magazine, December 2001.
- Stan Moyer, Dave Marples, and Simon Tsang, *A Protocol for Wide-Area Secure Networked Appliance Communication*, IEEE Communications Magazine, October 2001.
- A. Ghosh, D. Marples, S. Moyer, *ASP Perspectives on Networked Appliances*, In Proc. of ICC 2001, 11-14 June 2001, Helsinki, Finland.
- S. Tsang, D. Marples, S. Moyer, *Accessing Networked Appliances using the Session Initiation Protocol*, In Proc. of ICC 2001, 11-14 June 2001, Helsinki, Finland.
- D. Marples, *Networked Appliances; Bringing the Internet to a Washing Machine Near You*, Proc. of SIP 2001, 20-23 February 2001, Paris, France.

S. Tsang, S. Moyer, D. Marples et. al. *Internet Personal Appliances Control (IPAC) Discussion*, February 2001, <http://www.ietf.org/internet-drafts/draft-tsang-appliances-discuss-00.txt>.

S. Moyer, D. Marples et. al. *Framework Draft for Networked Appliances Using the Session Initiation Protocol*, July 2000, <http://www.ietf.org/internet-drafts/draft-moyer-sip-appliances-framework-00.txt>.

M. Kolberg, E. Magill, D. Marples & S. Reiff, *Second Feature Interaction Contest*, Feature Interactions in Telecommunications Systems VI, pp. 311-325, Glasgow, Scotland.

M. Kolberg, E. Magill, D. Marples & S. Reiff, *Second Feature Interaction Contest*, Feature Interactions in Telecommunications Systems VI, pp. 293-310, Glasgow, Scotland.

D.J. Marples, *SIP for Toasters: Naming and Accessing Network Appliances using extensions to the Session Initiation Protocol*, Proc. Of SIP 2000 Conference, May 9-12, 2000, Paris, France.

M. Calder, E. Magill, D. Marples, *Hybrid approach to software interworking problems*, IEE Proc.-Soft., Vol. 146, No. 3, June 1999.

D.J. Marples, E.H. Magill, *Using Transactional Techniques for the Detection and Resolution of Feature Interaction in Intelligent Network Based Systems*, Feature Interactions in Telecommunication Systems V, Lund, Sept. 1998.

D.J. Marples, E.H. Magill, D.G. Smith, *An Infrastructure for Feature Interaction Resolution in a Multiple Service Environment; The Application of Transaction Processing Techniques to the Feature Interaction Problem*, In Proceedings of Fourth Telecommunications Information Network Architecture, Melbourne, February 1995.

D.J. Marples, S. Tsang, E.H. Magill, D.G. Smith, *A Platform for Modelling Feature Interaction Detection and Resolution Techniques*, In Feature Interactions in Telecommunication Systems III, Amsterdam 1995. ISBN 90 5199 238 6.

## Patents

Patents on which I am listed as an author. Others may be in process that are not available for disclosure.

- 20070130209: *System and method for generating consumer relational marketing information in a system for the distribution of digital content*
- 20070124483: *System and method for high QoS digital content-based services*
- 20070106805: *System and method for peer-to-peer digital content sharing*
- 20060173784: *Payment system for the distribution of digital content using an intelligent services control point*
- 20060173783: *System and method for authorized digital content distribution*
- 20050232283: *Bridging local device communications across the wide area*
- 20040049714: *Detecting errant conditions affecting home networks*
- 20030018703: *Smart appliance network system and communication protocol*
- 20030140142: *Initiating connections through firewalls and network address translators*
- 20020167919: *Location Aware Services Infrastructure*
- 20020191567: *Method and system for soft handoff*
- 20020105926: *Method and System for Soft Handoff in Wireless Code Division Multiple Access (CDMA) Internet Protocol (IP) Networks*
- 20020103850: *System and method for out-sourcing the functionality of session initiation protocol (SIP) user agents to proxies*
- 20020103898: *System and method for using session initiation protocol (SIP) to communicate with networked appliances*
- 20020073215: *Method and system for transmitting encapsulated IPV6 data packets*
- 6611510: *Method and System of Soft Handoff of mobile terminals in IP wireless networks*

## Professional Experience

May 2007- Chief Scientist, Technolution B.V.

Responsible for representation of the company in the UK and development of the UK operation in addition to duties in mainland Europe working on Intelligent Transport Systems activities and representation of the organisation within standards and industry bodies. Application of GNSS techniques for ITS applications and development of technology for intelligent transport systems applications.

**Apr 2003-May 2007 Chief Scientist, Internet Architecture Research, Telcordia Technologies.**

Second appointment with the company. Tasked to develop European opportunities and to act as an Applied Research presence in Europe. Reporting to the Vice President. Activities include;

- Technical due diligence of companies on behalf of Venture Capitalists and other interested parties with a view to assessing the capabilities, limitations, opportunities and threats in the ICT of target companies.
- Development of Venture Capital industry liaison. Establishing a role for Telcordia as a trusted source of intelligence and opinion on the development of the European and World ICT market.
- Research into the development of user programmable capabilities in the mobile terminal (phone) market in Europe and the implications for the development of that market, based on previous work on the development of the MIDP and the OSGiA.
- Research into digital content distribution and digital rights management (DRM) and creation of a novel Digital Content Distribution framework for use in a Peer to Peer or centralized environment that respects the rights of all interested parties in the content distribution chain.
- Research into Service Fundamentals and Enablers – defining the necessary underpinnings for next generation services and their supporting architectures.
- Chief Architect and lead of the Core Architecture Group for the European Union Framework 6 project Global System for Telematics (GST). Acting as the technical lead for a project comprising some 50 automotive companies across Europe.
- Board Member of the Open Services Gateway Initiative Alliance (OSGiA) and OSGiA Fellow (an informal technical steering role).
- Research into the strategic underpinnings for next generation communications services; how they will be constructed, what the business models will be, where the commercial and technical opportunities are and determination of the timeline for the emergence of new markets.
- Extension and expansion of previous work into Networked Appliances and network connected devices; Joint instigator of the Consumer Communication and Networks Conference, ongoing editor of the IEEE Communications Magazine (COMMAG) series on Consumer Communications and Networking.
- Development of a new initiative in ICT for automotive application including data collection, analysis and reporting on Hydrogen powered vehicles for a major OEM.

Current research interests include both the automotive activities noted above and the development of systems that allow the creation of distributed, dynamic, heterogeneous and unstable coalitions of communicating processing nodes for the purposes of offering end user functionality in a secure and reliable way – we expect to see such coalitions in obvious environments such as communicating vehicles or mesh networks but also in slightly more unusual settings such as collaborating personal devices or soldiers on the battlefield.

**Nov 2001-Apr 2003 VP of European Operations, Global Inventures.**

Global Inventures is the company which manages many of the international industry collaboration initiatives such as HomePlug, OSGi, the Internet Home Alliance and the MPEG4 consortium. Further Information is available from <http://www.inventures.com/>. Reporting to the CEO. Activities included;

- Responsible for European presence for Global Inventures including the creation of an European office and development of line of business including Technical Due Diligence and company representation in Europe.
- 'Resident Technologist' for the business including ICT systems development and technology planning.
- Responsible for management of a number of the industry consortia that Global Inventures maintains.
- Executive director of the Open Services Gateway Initiative Alliance.
- Developed technical operations for the company and established technology required to support the business strategy including network systems and client rollout.

Working at Inventures has lead to a very good understanding of how to operate in collaborative/consortium environments and how to lead these groups of companies with incompatible agendas. Extensive experience

gained in working as the 'neutral party' in circumstances where conflicts arise and finding mutually acceptable resolutions to those conflicts.

**May 1999-Nov 2001**

**Chief Scientist, Internet Architecture Research, Telcordia Technologies.**

Telcordia Technologies is the new name for the old BellCore, the organisation that developed much of the technology in use in communications systems today including ADSL, ATM and MIME. Further information is available from <http://www.telcordia.com/>. Reporting to the Vice President. Activities during this first spell with the company included;

- Establishing and leading Telcordias' Networked Appliance research programme. Technical lead of team with overall responsibility for the execution of the project, guiding and influencing all aspects of Telcordia Appliance development and establishing collaborations with external organisations. Creator of the 'Networked Appliances' theme in the communications community.
- Establishing a Digital Content group within the business, and development of novel models for Digital Content Distribution (lead on to the DCD project on return to Telcordia, see above).
- Responsible for the development of a location-aware services infrastructure and the SIP for Appliances initiative. Demonstrators and technology proving models for novel appliance technology.
- Working with the Venture Capital community on a number of projects including spin-outs of owned technology and Due-Diligence activity on a sub-contract basis. Development of a VC operation within Telcordia.
- Responsible for the extension of Telcordia public switching knowledge into the private arena.
- Development of proxies for interworking between H.323 and internal protocols and liaison with product groups in the development of Call Agent technology.
- Development of Internet infrastructure and deployment strategy for RBOC.
- Troubleshooting role on Telcordia internal Mobile Systems projects.
- Architecture Chair of the Open Services Gateway Initiative Alliance. Defining work items, processes and procedures for the development of the OSGiA specifications.
- Creator and editor of the IEEE Communications Magazine In Home Networking (later Consumer Communications and Networking (CCNC)) series in collaboration with Stan Moyer.
- Contributor to the Mobile Information Device Profile (MIDP) led by Motorola and sponsored by Sun.
- Creator of the OSGi compliance verification program and the OSGi World Congress (now a yearly event).

**March 1996-April 1999**

**CTO/Technical Director, CITEL Technologies Ltd**

CITEL is a small, fast growing, venture capital funded organisation developing Computer Telephony Integration (CTI) for household names such as Toshiba, Panasonic and Lucky Goldstar. Further information is available from <http://www.citel.com/>. Reporting to the CEO/Investors. Activities included;

- Establishing a credible technical presence for the company within the industry. Representation of the company as the technical presence at high level client meetings.
- Development of processes and procedures for stable, reliable and problem free product development including creation and installation of all business support activities (Document Control, Build state documentation, processes and procedure development etc.). Processes and procedures extensively audited by clients, investors and others.
- Responsible for the specification and development of core products based on marketing input and for developing means and mechanisms by which code and design sharing between products could be achieved.
- Directing engineering effort at a strategic level while still maintaining hands on capability when required including development of both hardware and software sub-systems.
- Development and deployment of IT services within the organisation including e-mail, news, net access and security services in a distributed UNIX/Windows/NT environment.
- Development of ISDN and proprietary hardware for PABX interfacing in a PC environment using PCI, ISA and USB busses. Implementation of driver protocol stacks for these products including embedded firmware and Windows VxDs.
- Expansion of engineering team and three rounds of Venture Capital financing including third party Due Diligence assessment of engineering activity and audit by customers.
- Extensive collaboration with the engineering, marketing and management organisations of 'Blue Chip' companies such as Toshiba, Panasonic and Philips to create next generation communication products for integration in their portfolios.

**July 1995-March 1996      *Project Leader, ATM Terminal, GPT Ltd***

On return from the Advanced Technology responsibility for leading the development of the ATM Terminal strategy was allocated. Reporting to the Engineering Manager. Activities included;

- Responsible for leading a team of engineers and marketers in the requirements capture, specification and development of an Asynchronous Transfer Mode (ATM) terminal for use in the Windows environments.
- Liaison with external companies (Fore, ATML, IDT etc.) and standards bodies such as The ATM Forum and the ITU-T. Heavy involvement in the initial discussions between Fore and GPT which eventually lead to the acquisition of Fore.
- Extensive strategic level input into the development of the GPT ATM product range and the overall direction of future product development. Reporting
- Investigation of new switching software models including integration of public and private switch software builds.

**September 1992-June 1995      *Industrial Fellow of the Royal Commission for the Exhibition of 1851***

Research project into *The Extension of the Intelligent Network Paradigm to Private Systems* in association with GPT Ltd and Strathclyde University. While in receipt of this award also tasked with functioning as a member of the Advanced Technology Department of GPT Ltd, investigating new technologies; their implications and exploitation, reporting to the Advanced Technology Manager.

**September 1990-August 1992      *Software Engineer, Factored Products, GPT Ltd***

GPT was formed by the alliance of GEC and Plessey. It eventually became a core part of the Marconi empire of the late 1990s. Factored products were responsible for filling holes in the GPT portfolio with product sourced anywhere in the world and then adaptively engineered for the UK and Irish markets. First software engineer to join the group. Reporting to Engineering Manager.

- Responsible for the specification and testing of feature enhancements to the Nitsuko DXE keysystem implemented by the programming team based in Kawasaki, Japan including significant spells working with the team out in Japan.
- Product specification and development of a remote diagnostics card (R-Card) for the same system, leading a multi-discipline development team of six engineers on the development of both hardware and software. Work extended from decoding line level protocols of the existing equipment up to writing the Human/Machine Interface for access to the system. Eventually deployed across all branches of a large British supermarket, as well as several other sizable deployments.
- Crash engineering call recording solutions to meet specific security customer requirements.
- Responsible for the introduction of the Syntellect Interactive Voice Response (IVR) system into the UK market to operate on IBM and other mainframe/minicomputers. Working extensively on customer sites (e.g. airlines, petrochemical, financial industries) to develop customer facing applications based in the (then) novel technology of IVR.

**Other Information**

An archer with Sherwood Pines Field Archers and a keen motorcyclist who has sold his bike. Enjoys travelling, listening to music and reading, hates flying (but does at least 100 000 miles/year). Drives a Caterham 7 because it's fast, scary and good fun. Wishes he could play a musical instrument, but can't.

**References**

References can be provided on request.