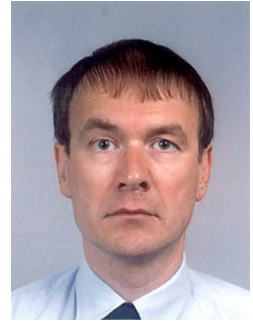


Curriculum Vitae Frits Wiarda, M.Sc.

Family name: Wiarda
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Born: 9 May 1961, Delft, Netherlands
Nationality: Dutch
Marital status: single

Web site: <http://www.fwiarda.com/>

Key Competences

Broad background in telecommunications and electronics. Worked both on the detailed design (analogue voice band and digital) and as a system architect.

Keywords: Mobile phone design, analogue and digital hardware, voice, IP, VoIP, Intelligent Networking, WLL, DECT, UMTS, GPRS, GSM, WLAN, Bluetooth, SatCom, PBX, ISDN, Linux.

Work Experience

2003 - now **Freelance Consultant Electronics and Communications**

Activities:

November 2008 - now ST-Ericsson (formerly Ericsson Mobile Platforms, Lund, Sweden)

As senior staff engineer I was responsible for the analogue baseband design, the Bluetooth RF and Bluetooth baseband design of a mobile phone reference design (U5500). I also automated Bluetooth verification.

October 2007 - November 2008 Ericsson Mobile Platforms (now ST-Ericsson, Basingstoke UK)

As baseband engineer for I was responsible for the design of the clocking of a mobile phone reference design (U335) and verification of the baseband part.

2006 - 2007 Ministry of Defence (Ede, Netherlands)

As lead architect transmission for the I was responsible for evaluating mobile satellite transmission systems (BGAN, Iridium, Inmarsat-C and DVB) and digital terrestrial radios (DRM and various Combat Net Radios) to be used in a blue force tracking system. The deliverables where evaluation reports of alternative technologies and a request for quotation to be sent to suppliers.

2005 Ericsson (Rijen, Netherlands)

As solution system manager I was responsible for system architecture and project start-up for Mobile Centrex. Mobile Centrex is a virtual PBX in the mobile network realized with intelligent networking applications on a application server. In the beginning of the project this involved translating requirements from product management into a system design (assigning

functions to blocks in the system and defining interfaces between these blocks). Next I was involved in selecting an external vendor for the application server software. In the end of the project I wrote more detailed specifications (state and flow diagrams), which were input for the verification department.

2003 - 2004 Sony Ericsson (Emmen, Netherlands)

Pre-study and development of a Bluetooth hands free car kit. In the beginning of the project I was responsible for the architecture and the selection of a vendor for speech recognition software. Later on in the project I designed the analogue front end and the base band hardware. This involved drawing the circuit diagram and verification of prototypes.

Miscellaneous

Installation and configuration of a Linux based web server (Apache / Webalizer), e-mail server (Sendmail / Procmal / Spamassassin / Squirrelmail), file server (Samba), DNS server (Bind) and SIP server (Asterisk). It also involved configuration of an external NAT gateway.

1993 - 2002 Ericsson (Enschede, Netherlands / Stockholm, Sweden)

- Job titles: Technical Product Manager, Systems Engineer, Hardware Design Engineer
Duties:
- Participation in an ETSI (European Telecommunications Standards Institute) Specialist Task Force. The output was a standard defining an interface (based on Bluetooth).
 - Team leader for pre-study on WLAN and GPRS integration. The deliverable was a requirement document to be used by the software design department and the testing department.
 - Specification of a next generation of IP based PBXs. The deliverables were requirement documents to be used by the hardware and software design departments and the testing department.
 - Various pre-studies on adding enterprise services to the 3G UMTS network. The deliverables were strategy documents for top management.
 - Participation in DECT standardisation within ETSI (European Telecommunications Standards Institute).
 - Definition of the product development process (ISO9000 / CMM).
 - Specification of complete DECT based Business Cordless Telephony systems. The deliverables were requirement documents to be used by the hardware and software design department and the testing department.
 - Specification and project management of market adaptations for a DECT Wireless Local Loop system. The deliverables were customisations for different markets (mainly software, but sometimes also small hardware modifications).
 - Hardware design of a Cordless Terminal Adapter for a DECT Wireless Local Loop system. The deliverable was a small box containing a DECT radio and an analogue line interface. This box was produced in large volumes (several 100 000s per year). It was a very challenging product because it combined high frequencies, with low cost and extreme climatic conditions (outdoor mount in tropical countries). I was responsible for the digital circuits and the analogue voice band part.
 - Studies for voice band data performance over DECT radio links.
 - Development of a series of analogue line cards for a DECT Business Cordless Telephony system. This involved gaining type approval all over Europe.

1989 - 1993 AMEC Engineering (Schiedam, Netherlands)

- Job title: Junior System Engineer.
Duties:
- Development of TCP/IP client software for MS-Windows.
 - Development of TCP/IP software for a real-time control system on dredging ships.
 - Development of a voting machine. This involved both hardware and software.
 - Various work with PLCs.

1987 - 1989 Telenorma (Rijswijk, Netherlands / Düsseldorf, Germany)

- Job title: Hardware and Software Engineer.
Duties: Development of an analogue subscriber line interface for a PBX. This involved both hardware and software (8031 microprocessor).

Education

1979 - 1987 Electrical Engineering, Delft University of Technology, Netherlands (Master's Degree)

- Thesis: Location registration in the GSM cellular radio network.

1973 - 1979 High School, Delft, Netherlands (VWO)

Knowledge of languages

Dutch (native), English (very good), German (good), Swedish (basic level), French (basic level)

Drivers licence

Regular car

Hobbies

Travel, photography, dining