

Curriculum Vitae

Dr. Silvano Maffeis



My strengths are in the design and implementation of innovative IT systems, for solving real-world problems in the field of web information systems and mobile services. I'm considered an expert in distributed computing systems, middleware, Web Services, Java, and mobile apps.

The middleware products I've developed are used in mission critical systems, e.g., inside the eBay auctioning system, at government entities and at international banks. One of my mobile apps has been used on more than 300.000 mobile phones in 2005, making it one of the most widely deployed mobile middleware solutions at that time.

Besides my technology skills, I have successfully managed software projects, IT departments, and technology startups.

In spite of my management experience, in my heart I will always be a hands-on person who loves to roll back his sleeves and to do software development work.

Work Experience

2/2003-present Vipera GmbH Zürich / Milano / London

Co-Founder and Chief Technology Officer

- Inventor of Vipera mobile application platform
- Architect and lead developer of a mobile social network
- Architect and lead developer of a mobile banking solution
- Technical lead in design, development, and operation of mobile data services based upon JavaEE, JavaME, Android, iOS, BB OS, OSGi, Linux, JBoss, Apache, and MySQL
- On-site development of Vipera solutions in Asia and Middle East
- Customer support and IT systems support
- Fund raising, business administration, solution selling in Asia, Europe, US

2/2003–3/2005 Pyx Engineering AG Zürich, CH

Software Architect / Consultant (80%)

- Design and implementation of mission critical software systems based on Oracle DB, Oracle AS, IBM WebSphere, JMS, Apache HTTP server, Tomcat, JBoss, Java, PL/SQL, SOAP, OpenLDAP, Linux, Solaris, Win32
- JavaEE, SOAP Web Services, UDDI, XML/XSLT, JSP, Servlets
- Security solution for a large bank, based on OpenSSL, SSH, JAAS
- Build and release management with Ant, Maven, CVS, RPM, etc.
- Automated testing with JUnit, HTTPUnit, Jakarta Cactus, JMeter, etc.
- Developer trainer / coach for JavaME, JavaEE, client/server design
- Customers: Large and small financial institutions as well as industrial companies

5/1998–1/2003 Softwired AG Zürich, CH

Chief Technology Officer

- Responsible for the company's technology vision and product strategy
- Responsible for development of new middleware products
- Inventor of the iBus//MessageBus product, industry's first IP multicast enabled JMS middleware. [Java, JMS, reliable IP multicast, fault-tolerance, data centers, Java

performance tuning, Windows, Solaris, Linux]

- Architect of “iBus//Mobile”, industry’s first Wireless JMS middleware. [JavaME, Java Phones, PDAs, SMS, MMS, GPRS, WAP, reliable wireless messaging]
- Recruiting and mentoring of software engineers
- Management of development teams and software projects
- Architectures (n-tier), development, test, and customer support
- Member of board of directors

5/1996–4/1998 Olsen&Associates AG Zürich, CH

Head of IT Department

- Member of Olsen & Associates management board
- Design and development of a middleware architecture for the transmission of real-time financial data. [CORBA, C++, UML, Solaris, IP multicast]
- Selected experienced software developers
- Managed software department of 14 engineers
- Budget responsibility for IT infrastructure purchases
- Assisted CEO and sales department in business development activities

1987–1991 Various companies

Software Engineer (part-time)

- As a student, I developed software for various companies (Unisys, ATAG Ernst &Young, ETH, etc.) [C, C++, Unix tools, database programming]

1984-1986 Pomey Engineering Uetikon, CH

Hardware Engineer (part-time)

- Manufacturing portable computer terminals based on Intel 8085 CPU and home grown OS. Assembling and testing motherboards.

Mobile Social Networking

- Design and implementation of a mobile blogging and messaging service
- Presence service, user profiling service, mobile multimedia streaming

Financial

- Financial data feeds (FX)
- Mobile payments
- Mobile banking

Telco

- Mobile networks (GSM-Data, GPRS, UMTS, WLAN)
- Mobile services (SMS, MMS, WAP 2, XHTML, Push communication)
- Mobile applications (JME, Symbian, PalmOS, PocketPC)
- Billing, provisioning, content transcoding, UA profiling

Domain Experience

Education

1995–1996 Cornell University Ithaca, NY

Researcher

- Post-doctoral research at the distributed systems research group of Prof. Kenneth P. Birman
- CORBA middleware, group communication, reliable multicast protocols, distributed systems architectures, virtual synchrony, fault-tolerance, scalability.

1991–1995 University of Zurich

Doctoral Studies (Dr. oec. publ)

- Doctoral Degree in Computer Science with honors (*Summa Cum Laude*)
- Distributed systems, communications protocols, middleware, system

architectures, object-oriented design, file-system design [CORBA, C++, group communication, Perl, Solaris]

- System administration of department computers
- Fund raising to finance my doctoral R&D (Siemens, UBS, KWF)

1986–1991 University of Zurich

Computer Science Studies (lic. oec. publ)

- Computer Science and Business Administration (*Wirtschaftsinformatik*)
- Graduated with honors (*Summa Cum Laude*)
- Student projects at Unisys and at ETHZ
- Co-founder of computer science student association (ICU)
- Fund raising for ICU high-end computing infrastructure (100k sFr)

Innovations

Software Systems

- Electra CORBA ORB for fault-tolerant systems (open source)
- GTS: A flexible Internet message queuing middleware (open source)
- Vanilla FS: a configurable mixed-media file system (open source)
- iBus//MessageBus: Multicast-enabled JMS middleware (commercial)
- iBus//Mobile: Wireless JMS middleware (commercial)
- Vipera mobile social network (free to use)
- Vipera mobile banking (commercial)

Patents

- US-Patent 6,877,023 (granted), *Messaging System For Delivering Data In The Form Of Portable Message Formats In-Between Message Clients*
- US-Patent 6,721,779 (granted), *Messaging Proxy System*
- US-Patent (provisional) 60/294,841, *Hayabooza Mobile Applications Platform*
- US Patent 11,171,82 (pending) "Method and apparatus for operating a value-added mobile data communication service on top of existing mobile telecommunications networks"

Awards

- Swiss Tech Tour 2007 finalist
- "JavaMagazin Bestes Produkt 2005" Award
- JavaWorld Editor Awards Finalist (iBus//Mobile product)
- WirelessDeveloper.com, Application of the Year 2001 (Hayabooza)
- ComputerWorld CH, Best Internet Company Award 2001 (Softwired)
- Symbian Best Java Application Award 2000 (iBus//Mobile product)
- Switzerland Technology Association Award 1998 (iBus products)
- Bank Vontobel Foundation Award 1998 (Entrepreneurial Leadership)

Publications

Books

- *Professional JMS Programming*, Wrox press. Co-author.
- *Projekterfahrungen mit Java*, dPunkt Verlag. Editor & Co-author.
- *Run-time Support for Object-Oriented Distributed Programming*, PhD Thesis. Author.

Articles

Over 30 technical articles in recognized journals such as IEEE Computer, Communications of the ACM, Theory & Practice of Object Systems, IEEE Communications Magazine, Java Report, Java Developer Journal, Java Spektrum, and Encyclopedia of Computer Science. My publications are related mainly to middleware, communications networks, wireless computing, and fault-tolerance. List of publications available on request.

Presentations

Large number of technical presentations, workshops, and invited talks in front of an international audience (US, Europe, Asia). Both at conferences (IEEE, ACM, JavaOne, SIGS, IBC, Usenix, etc.) and at corporations (Sun, IBM, BEA, Siemens, Vodafone, UBS, Credit-Suisse, ABB, etc.).

Technical Skills

- **Software Design:** Client/Server, n-tier architectures, web services, middleware, OO design, UML
- **Methodologies:** Agile development, Extreme Programming (XP)
- **Programming:** Java (JavaSE, JavaME, JavaEE, JSP, JSF), Web Services (SOAP, Axis, .NET), XML, SQL, Eclipse, Netbeans, Maven, Ant, ANSI-C, C++, Perl / PHP, Python, Tcl/Tk, Shell scripting, AWK, Unix tools, HTML
- **Network engineering:** TCP/IP, UDP, HTTP, IP multicast, IP routing, firewalls, WLAN, LAN, WAN, SMS, MMS, GPRS
- **Systems engineering:** Solaris, Linux, MS Windows: System set-up, administration, internetworking, and system programming
- **Enterprise Platforms:** JBoss, IBM WebSphere AS, Oracle DB, Oracle AS, BEA WebLogic, SonicMQ
- **Databases:** MySQL, Oracle, Embedded DBs

Memberships

- Co-founder and board member of Java User Group Switzerland (www.jugs.ch)
- Co-founder JBoss User Group Switzerland
- Java Community Process Expert Group Member (JSR 120, 172, 307)
- Member of ACM, IEEE, SI-JUGS, ERFA Internet Efficiency

Personal

I'm divorced and I have two daughters, Vanessa (1996) and Désirée (1999). I speak German (mother tongue), English, Italian, and French.