

Curriculum Vitae Dr. Silvano Maffeis



My strengths are in the conception and implementation of innovative IT solutions, 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 solutions.

The middleware products I've developed are used in mission critical systems, e.g., inside the eBay auctioning system and at international banks. One of my products has been activated on more than 200.000 phones, making it one of the most widely deployed mobile middleware solutions.

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

Work Experience

2/2003-present Vipera GmbH Zürich / Milano / Palo Alto

Co-Founder and Chief Technology Officer

- Invention of virtual mobile application network operator concept
- 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, XHTML, Linux, JBoss, Apache, and MySQL
- On-site deployment of Vipera solutions in Asia and Middle East
- 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, SOAP, OpenLDAP, Linux, Solaris, Win32, etc.
- JavaEE, SOAP Web Services, UDDI, XML/XSLT, JSP, Servlets
- Security solution for a large bank, based on SSL, SSH, JAAS
- Build and release management with Ant, 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
- Architect 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 of experienced software engineers
- Management of development teams and software projects

- Architectures (n-tier), development, test, and customer support
- Member of advisory board

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

Head of IT Department

- Member of Olsen & Associates management board
- Designed and implemented a middleware architecture for the transmission of real-time financial data. [CORBA, C++, UML, Solaris, IP multicast]
- Recruited 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

- Data feeds
- FX
- Mobile banking
- Trading systems / PubSub

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

References

- Prof. Kenneth P. Birman, Cornell University (ken@cs.cornell.edu)
- Dr. Richard M. Soley, Director OMG (soley@omg.org)
- Prof. Dr. Lutz Richter, University of Zurich (richter@ifi.unizh.ch)

Personal

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