

PKI Offerings

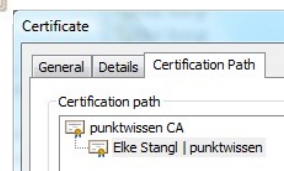
- **Design, planning and implementation** of PKI core components and PKI-enabled client applications.
- **Review, troubleshooting** and fixing of existing PKIs.
- Design of **end-entity certificate rollout**, certificate **lifecycle** management, integration with **operations**.
- Technical **project management** in PKI projects.
- **PKI trainings and presentations**: From CIO / overview level to drill-down to PKI internals.
- Documentation and qualification according to industry standards in **pharmaceutical environments**.

Methodology

- Enable the customer to **complete PKI projects successfully without external help**, but provide additional support if required.
- Intense **know-how transfer** at an early stage of a project based on an analysis of business needs.
- **Hands-on support** during implementation phase as external project team member.
- Project co-ordination, **high-grade documentation**, quality management at any stage of the project.
- Often engaged as subcontractor of SW vendors.

PKI Experience: Facts and Figures

- PKI projects have been delivered to customers in: **AT, CH, DE, PL, UK, IT**
- Customers' **industry sectors**, ordered by relevance: Manufacturing, financial services, public sector, Information technology / telco.
- Specialized on PKI since 2002, distinct **PKI consulting end customers : ~70**
- PKIs deployed at ~30 different end customers.
- **Train-the-experts workshops** delivered to other security / PKI consultants
- PKIs implemented at **global customers: 3 manufacturing, 2 financial services, 1 telco**
- Maximum **number of AD domain controllers** in a customer environment: ~ 1.500
- Maximum **number of countries** with subsidiaries of a **global customer**: ~ 100
- Maximum **number of users in global AD** environment with PKI: ~ 100.000
- Broad range of **PKI implementation project durations**: From 2 days emergency PKI re-build to two years.
- **PKI products**: Windows 2000/03/08 CA, Verizon (Cybertrust) UniCERT CA, MS Identity Lifecycle Manager (CLM)
- **Hardware security modules**: nCipher, SafeNet, Utimaco
- **Directories**: Active Directory, Active Directory in Application Mode
- **PKI enabled solutions**: Encrypting File System, e-mail signature and encryption, PDF signing, code and macro signing, VPN (CISCO, Microsoft, Phion, Nortel), SCEP (devices), 802.1x, IPsec, smartcard / token based interactive logon (Aladdin eToken and Sicrypt cards), logon to web applications, various custom applications.
- **Related experience**: Active Directory design, Kerberos troubleshooting, DNS, DHCP, LDAP, SQL server encryption, IIS web server, server hardening and group policies, IT (project) management.
- **Regulatory requirements**: 21 CFR part 11, GMP, GAMP, FDA, EU and national dig. signature regulations.
- **Cross-trusts, external PKIs**: A-Trust qualified and advanced signatures, Verizon (Cybertrust) public CAs.



Other PKI Activities

- Yearly **Lecture Authentication, Authorization and PKIs** in the international Master's degree programme "Advanced Security Engineering" at FH Joanneum since 2007.
- Talk at **Symposium "Security is..."** at FH Joanneum: "Public Key Infrastructure: Vision, Trends and Real-World", 2007
- Lecture on **Cryptography Basics and Applications** at University of Salzburg, 2006
- Talk at **Microsoft .NET Conference**, Austria Center Vienna, 2002: "PKI Implementation"
- Ongoing **tests of PKI related hardware and software**, informal relationships with different vendors.

Dr. Elke Stangl

- **IT security consultant and partner** at punktwissen since 2006-01: Specialized in PKI.
- **Senior Security consultant** at Microsoft Austria, focus: PKI and security [2001-05]
- **Manager IT infrastructure** at Austrian Research Centers. Division Org/IT. Interim CIO. [2000-01]
- **IT freelancer** for SMB customers. IT project co-ordinator at Austrian Research Centers. IT trainer [1997-2000]
- **Scientist** at Austrian Research Centers [1995-97] and University of Linz [1992-95] : Materials technology, superconductors, laser technology.
- **Qualifications**: PhD in Technical physics, MCSE 2000/2003, management (Danube University, 1 year)