

About PKI Solutions

PKI Solutions offers PKI consulting, training, professional services, and assessments to help ensure the security of organizations now and in the future. With deep knowledge and experience in all things public key infrastructure (PKI)—Microsoft Active Directory Certificate Services (ADCS), PKI design and implementation, Internet of Things (IoT), mobile security—PKI Solutions has the best expertise for organizations of all sizes. PKI Solutions has implemented PKI solutions at enterprises, many of them Fortune 500 companies, in many industries including energy, IoT, technology, healthcare, and financial services, as well as federal, state, and local government. PKI Solutions has also led hundreds of PKI trainings, including private trainings, across the country and around the world—from Scotland to Buffalo, from Sweden to Washington, D.C.—and everywhere in between.



Today's security climate

The need to secure and protect sensitive data via electronic transactions is more important and challenging than ever. Today, organizations face increasing cybersecurity threats including ransomware, human factor, financial pretexting, phishing, and outside attackers. PKI is a highly-effective solution to protect user credentials and privacy, enabling a trusted environment by authenticating and ensuring the integrity of data and users. The cryptographic keys of PKI can't be socially engineered or easily stolen, so by requiring a certificate to authenticate to a VPN, organizations have a much higher level of assurance of who or what is connecting to the network.

PKI explained

PKI is a set of software and hardware technologies designed to manage the creation, storage, transmission, and authentication of digital certificates and their associated encryption keys. A real-world analogy that describes a digital certificate is a driver's license. In the digital realm, a digital certificate serves as a way for people or devices to prove who or what they are, because a part of the PKI known as a certificate authority (CA) has issued and "signed" the certificate, vouching for the person or device.

PKI-enabled systems provide strong authentication and encryption of data by using cryptographic functions. Unlike traditional identity processes where users are identified by passwords, a PKI issues a certificate via known, trusted channels and binds the certificate to a cryptographic key pair. A well-designed PKI combines roles, policies, software and hardware elements to enable secure electronic transfer of information.

CORPORATE FACT SHEET

Professional Services, Training, Support

PKI design and implementation: A well-designed and built PKI is critical to its long-term viability and integrity.

Internet of things security and identity: Any device on the internet is a potential attack vector.

Enterprise PKI support services: Proper operating practices, security and management are critical to ensuring the PKI is protecting your valuable data.

Microsoft ADCS PKI training: PKI Solutions training focuses on building knowledge and skills with all features of Microsoft Active Directory Certificate Services (ADCS). There is a strong emphasis on security, best practices, and hands-on skills labs.

Hardware security modules (HSM): HSMs can be used in a PKI to thwart internal and external threats by enforcing defined procedures and ensuring no one person can compromise it.

Bring your own devices – mobile management: One of the biggest security hurdles in the enterprise today is managing and securing the countless personal mobile devices employees bring to the office. A properly designed PKI environment is needed to support devices that are not part of the typical managed enterprise.

ADCS Best Practice Reviews: The PKI Solutions' ADCS Best Practice Review compares an organization's environment to industry best practices. This formal report and analysis of an organization's PKI will illuminate strengths and weaknesses, outlining problem areas that need to be remediated.

Clustered PKI solutions: The integrity and availability of an organization's PKI environment can have a dramatic effect the security of the enterprise. Clustered solutions will ensure PKI components are available when computers need them.

Certificate policy (CP) and certificate practice statements (CPS): Not every organization needs a CP or CPS, but the best secured and managed PKIs usually do. It is often a prerequisite for joining the federal bridge, university bridges as well as many medical organizations.

HSPD-12 consulting services: HSPD-12 established identity standards for all U.S. federal government agencies. PKI Solutions is well-versed in the requirements for HSPD-12 compliance.

PCI compliance and remediation: Any environment that processes, stores or transmits credit card information is required to be PCI DSS compliant and pass regular audits. PKI Solutions provides architectural and management expertise to mitigate any issues that may potentially arise during a PCI audit.

PKI policies and procedures: Most organizations try to document their infrastructure, applications and security procedures, but there is rarely enough time or expertise to do it well. PKI Solutions can help create the documents and procedures needed.

“ A poorly designed, executed, or managed PKI can introduce more security issues than it solves. ”

- Mark B. Cooper
President & founder, PKI Solutions

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Training: Building expertise with certificate services

The ability to design and manage a PKI is highly dependent on the skills and knowledge of those managing it. PKI Solutions training focuses on building knowledge and skills with all features of Microsoft ADCS. There is a strong emphasis on security, best practices and hands-on skills labs.

Training Courses

Microsoft PKI In-depth: This course covers PKI fundamentals and concepts all the way through a deep-dive into PKI and certificate services by focusing on building knowledge and skills with all of its features.

Advanced Microsoft PKI: This advanced PKI class focuses on hand-on labs and topics that build on existing Microsoft certificate services and PKI knowledge of the student. The course also covers code signing, key-pair file management and restricted certificate enrollment agents.

“Mark has a great presentation style and the labs are fantastic. Couldn't recommend his training enough for a company looking to deploy or re-implement PKI.”

- Mark Steffen
Senior Security Engineer, PCC Aerostructures

Leadership

PKI Solutions president and founder, Mark B. Cooper is a leading PKI expert and internationally known as “The PKI Guy” since his early days at Microsoft, where he was senior engineer and leading subject matter expert for Microsoft ADCS, identity management, and PKI. He designed, implemented, and supported ADCS for Microsoft's largest customers and has traveled the world supporting and advising many Fortune 500 customers on all things PKI. Cooper founded PKI Solutions Inc. in 2014, allowing him to promote greater adoption of PKI technologies.

Partners and Products

When building, securing, and managing a PKI, there are many components that play key roles in a comprehensive PKI project. The design and deployment of the Certificate Authority (CA) is just one part. Most PKIs need integrated supporting products to secure and manage the PKI, including hardware security modules (HSM), certificate management and reporting software, and PKI enablement solutions.

PKI Solutions' partners include:


- **Revocent Inc.**, a company specializing in PKI solutions for Certificate Automation.
- **Thales**, a leader in HSM that generates and secures cryptographic security keys.
- **Gemalto**, as a Gemalto Cipher Silver Partner, we offer the full range of HSM products, software and components to complement the PKI.
- **CSS**, an industry leader in customer-focused certificate lifecycle management software and services.
- **Cisco**, as a Cisco Registered Partner, we offer the full range of Cisco networking equipment.



Contact Us

PKI Solutions Inc.
19363 Willamette Drive, #333
West Linn, Oregon 97068

pkisolutions.com
971.231.5523
info@pkisolutions.com

 [@PKISolutions](https://twitter.com/PKISolutions)
 [pki-solutions](https://www.linkedin.com/company/pki-solutions)