

Buyer's Guide:

# The Essential Guide to Evaluating PKI Solutions

Learn the 6 critical elements  
of a modern PKI platform



# Read before you start

If you're reading this guide, chances are you're in the market for a new public key infrastructure (PKI) solution. Why? It could be that your root certificate authority (CA) is about to expire, or maybe it's running on a server that's near end-of-life. You may be rolling out a new project or product line, or maybe it's just that your current PKI solution can't support the growing volume and velocity of certificates in your environment.

No matter the reason, you've come to the right place.

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## What's inside

PKI comes in many forms and flavors, each designed to meet specific use cases and requirements. This guide is intended to help you find the right fit for your organization. It identifies the different types of PKI, common use cases, key considerations, and guidance on how to evaluate various solutions and service offerings.

So, what are you waiting for?

**Go ahead, dive in.**

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# PKI: The foundation of trust in a hyper-connected world

The world has changed — what about your PKI?

Public key infrastructure (PKI) is nothing new. It's been widely adopted for the better part of two decades. Why? PKI delivers the critical functions of authentication and encryption that ensure every connection — human to machine or machine to machine — is protected. It also enables organizations to digitally sign everything from code to documents with a trusted and verified signature.

The world has become hyper-connected, making it more important than ever to establish digital trust with a modern PKI. The adoption of PKI has extended well beyond traditional use cases like securing web servers or users and devices on the network. The productive and innovative ways people use PKI today are simply incredible — [delivering authenticity across the Internet, enabling developers to move fast while staying secure](#), and [even securing millions of connected vehicles](#).

There's truly no end to the potential for PKI to deliver value. That said, many teams and organizations rely on outdated PKI software or multiple point solutions, resulting in overly complex, manual, and risk-prone processes. Fortunately, advancements in technology and cloud services mean that PKI is now more flexible than ever, so long as you have the right solution.

This guide was created to help IT, IoT, and security professionals better understand the PKI landscape, evaluate solutions based on key criteria, and ultimately, find a modern PKI platform to effectively protect and enable their organization.

“ The use of PKI is growing, and more machines use certificates to encrypt communication for authentication or to sign workloads (i.e., code signing.)”

Managing Machine Identities,  
Secrets, Keys and Certificates,  
Erik Wahlstrom

Gartner, 16 Mar 2022

01

# Assess your needs

Understand what your organization needs in a PKI solution

There's nothing worse than selecting a vendor, only to realize during implementation that you're in way over your head, or worse, the solution doesn't deliver on all its promises. To find the right PKI solution, start first with your requirements.

What you do with PKI is far more important than PKI itself. Begin by assessing your organization's unique use cases, IT policies, and available skills and resources required to support PKI. Taking this step first will help you assess solutions based on your needs versus what vendors say you "need."



## Expertise

Do you have the specialized expertise on staff required to deploy, configure, and manage PKI? Remember, PKI is critical infrastructure – a simple misconfiguration can lead to serious risks and consequences. Also, consider whether you have enough bandwidth on your team to handle ongoing maintenance and certificate management.



## Control

How hands-on does your organization want to be in managing PKI? Should the solution be fully configurable or turnkey? Are there policy or regulatory considerations that require your organization's PKI to remain on-premises? Or would you benefit from a SaaS PKI or fully managed service?

ENTERPRISE PKI



SINGLE-USE PKI

MILLIONS



THOUSANDS

HIGH ASSURANCE



LOW ASSURANCE

FULL AUTOMATION



PROTOCOL-BASED

## Use cases

Consider the use cases your organization's PKI will need to support today, and, more importantly, into the future. In most cases, PKI supports dozens of different use cases and technologies across the organization. Consult with the various teams that rely on PKI (e.g., IT, development, product, infrastructure, security, etc.) to ensure you have the full scope of all required use cases.

## Scale

Another consideration is the scale and growth of your business operations. This is where capabilities such as high availability, active-active architecture, and auto-scaling become important. For instance, DevOps teams typically require high-volume issuance and short-lived certificates. Not every PKI solution is able to support the volume and velocity of issuance in these environments.

## Trust & compliance

Perhaps the most important consideration is the level of assurance behind your organization's PKI. Depending on your industry, corporate IT policy, and regulatory mandates, your organization's PKI will need to comply with certain standards. Be sure that the PKI solution and vendor you select will help you meet these requirements.

## Certificate management

It's one thing to issue certificates — it's another to manage them. To avoid outages and security risks caused by untracked or unmanaged certificates, consider the tools you'll need to discover, inventory, and manage them at scale. Some providers offer PKI with full certificate lifecycle automation. Others require bolt-on solutions from other vendors.

# Understand the PKI landscape

Know your options and the key differences

PKI is one of the most critical components in any security strategy. Unfortunately, those responsible for deploying and managing PKI face an increasingly complex landscape of CAs and PKI tools – all with features that sound identical at the surface level. With so many options, choosing the right PKI solution is anything but straightforward.



## Software / Hardware PKI

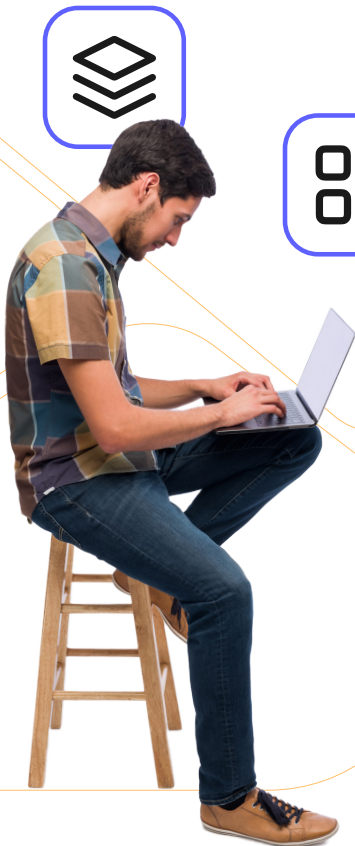
Software and hardware-based solutions allow organizations to deploy PKI within their data center, in the cloud, or in a manufacturing environment. These are more than just a CA; they should include all PKI components in one platform.

## SaaS PKI / PKI as-a-Service

SaaS-delivered PKI or PKI as-a-Service solutions deliver all the functionality of an enterprise PKI hosted and delivered by a third-party provider. These solutions differ greatly in architecture, deployment models, and the level of control you retain over the PKI.

## Active Directory (AD)

Microsoft Active Directory Certificate Services (AD CS) is a utility bundled with Windows Server. Once the de facto choice for enterprise PKI, AD CS has since become a less-than-ideal solution for modern multi-OS, multi-cloud environments.



## Built-in Issuers

Certificate issuance capabilities built into secrets managers and container orchestration tools can support some DevOps and CI/CD use cases, but typically lack the policy, governance, and extensibility that security teams require for an enterprise PKI.

## Public CAs

Publicly trusted CAs, also known as SSL/TLS certificate providers, issue certificates trusted by operating systems, browsers, and applications. These are required for public-facing web servers and code signing but shouldn't be used for internal use cases.

## Cloud CAs

Cloud-native CA solutions, such as AWS Private CA and Google CA Service, are designed to support cloud workloads and services within their own cloud environment but aren't well-equipped to handle on-prem or multi-cloud environments.

If you're in the market for a PKI solution, chances are you're not looking for a traditional PKI. A solution that's static, difficult to scale, and doesn't integrate with modern infrastructure isn't a solution at all. On the other hand, you don't want point solutions either. You need one modern PKI platform which meets all your use cases and that deploys however and wherever you need it.



# Evaluating PKI solutions

## The 6 critical elements of a modern PKI platform

Keyfactor believes that truly modern PKI must provide the highest level of security and flexibility. A modern PKI platform must be quick to deploy, flexible enough to work in any ecosystem, simple to configure and manage, effortless to scale on demand, and capable of meeting even the most stringent security and policy requirements. That's a tall order, but not an impossible one.

To achieve both security and flexibility, PKI must include six critical elements. These elements can be used as guidelines when evaluating PKI platform solutions. Some will carry more weight than others, but all are important to assess and consider.

### Core PKI functionality

Robust issuance, enrollment, revocation, and management capabilities to establish trust.

### Flexibility

Architecture and delivery models that run however and wherever your business operates.

### Extensibility

Integration to systems and applications via protocols, APIs, and pre-built plugins.

### Scalability

Fast deployment, high availability, and on-demand issuance at any scale — large or small.

### Certificate management

CA-agnostic, centralized certificate discovery, governance, and lifecycle automation.

### Vendor compliance, security, and services

A solution backed by proven compliance, security safeguards, and reliable support.

# Core PKI functionality

## Issue, renew, and revoke certificates at scale

Every PKI solution should offer four basic capabilities — enrollment, issuance, revocation, and an audit log of all activities. This seems like a no-brainer, but we all know what it's like when vendors don't deliver even the basic functionality that we assume should come out of the box.

To find a solution that delivers what you expect from a modern PKI, look for:

### A PKI platform — not just CA software

PKI isn't just CA software, it's critical infrastructure, and every deployment looks different. Find a solution that gives you the flexibility to architect PKI however and wherever you need it. For instance, you should be able to spin up a standalone CA (e.g., an offline, air-gapped root), host multiple issuing CAs on a single installation (multi-tenant), or segment CAs into connected nodes for improved security or availability.

### Self-service enrollment

Not everyone uses APIs and protocols. End users should have an easy-to-use interface where they can request and obtain compliant certificates for their applications. Look for solutions that provide a registration authority (RA) that can be deployed on the same instance as your CA or proxied to the CA to avoid exposing the CA to the domain. You should also be able to define roles and access management rules, as well as approval workflows for enrollment.

### Flexible validation services

Checking the status and validity of certificates is an essential function of any PKI solution. Look for solutions that enable validation using either Certificate Revocation List (CRL) distribution or real-time OCSP, with the flexibility to automatically push CRLs to an HTTP server or host it on the PKI instance itself to avoid the need for additional servers.

## QUICK TIP

Avoid monolithic PKI solutions that require additional servers for each CA instance. This increases costs, slows deployment time, and creates more complexity.

## ✓ A web-based administrative GUI

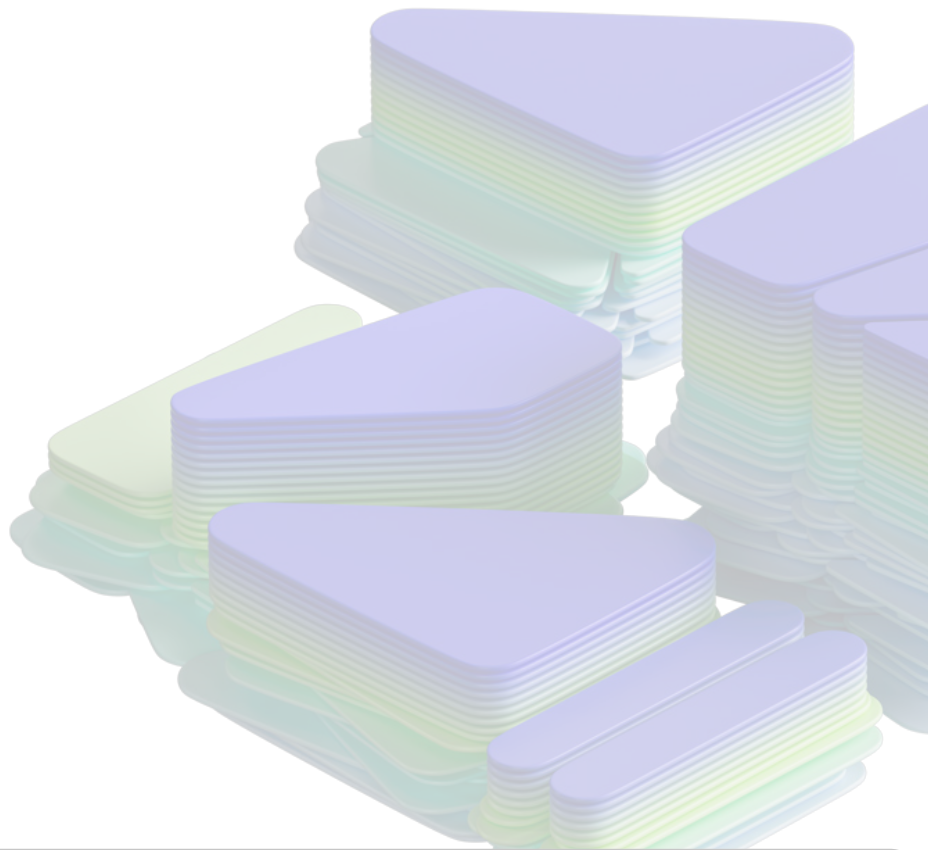
PKI admins need a way to configure and manage everything from CAs and certificate policies to enrollment and access controls. Some PKI solutions don't provide an administrative UI while others require an additional client. Seek solutions with a browser-compliant web UI that doesn't require any additional software or licensing.

## ✓ HSM integration

PKI acts as the root of trust for your organization, and therefore, it must be safeguarded. Hardware security modules (HSMs) are essential to protect CA keys against theft or misuse. Ensure the PKI solution you choose offers flexible support for HSMs via PKCS#11 or REST API, including hardware- and cloud-based HSM services, such as Azure Key Vault or AWS CloudHSM.

## ✓ Audit and transaction logs

Continuous monitoring and audit logs are a must with critical infrastructure. Be sure that your provider enables comprehensive and cryptographically signed audit logs for all certificate and configuration-related activities. The bottom line: your PKI solution should make audits easier, not harder.



# Flexibility

## Run PKI however and wherever you need

Security needs to run wherever your teams do, without slowing them down. When PKI systems are hard to deploy and administer, people come up with workarounds or wind up deploying multiple PKI tools to solve different use cases – creating more complexity, effort, expense, and risk.

The good news is that advancements in PKI and cloud technologies offer much more flexibility than ever before – so long as you choose a solution that offers:



### Flexible delivery models

Every business has different infrastructure, IT policies, and available skillsets and resources. You'll want a solution that's designed specifically for your requirements now, with the flexibility to adapt in the future. Look for PKI solutions that come in different form factors – as a container, a virtual appliance, or a turnkey hardware appliance (“PKI in a box”). Or something cloud-based, whether it's a cloud instance, a turnkey SaaS PKI, or a fully managed PKI service.



### Modular, scalable architecture

PKI isn't a monolith, it's a fabric of critical components - root CAs, issuing CAs, registration authorities (RAs), and validation authorities (VAs). Look for solutions that make it easy to deploy these core functions as modular components that can be securely connected. That way, you can run your root CA in an offline, air-gapped environment, issuing CAs behind the firewall, and cluster RAs and VAs in the cloud, for example. You can even run an RA locally on a factory floor for manufacturers that need to issue certificates onto devices from birth.

# 53%

of organizations say they don't have enough staff to deploy and maintain their PKI

2023 State of Machine Identity Management Report

## ✓ Support for your preferred database or HSM

Some PKI solutions don't have a built-in database — they may use LDAP. Others are limited to the database they're bundled with. If you choose to deploy PKI on your own versus as a service, make sure you don't get locked into a specific OS, database, or HSM. Look for solutions that offer a built-in database and HSM if you need it, but also integrate with external HSMs and databases, including cloud-native databases in AWS or Azure.

## ✓ Quantum-ready issuance

Support for RSA and ECC algorithms is table stakes. Quantum-resistant algorithms are being standardized and the time to prepare is now. Like the transition from SHA-1 to SHA-2, the transition to quantum-safe cryptography will take time. Be sure that your PKI vendor supports NIST-standardized algorithms so you can begin to test in your lab environment now and know that you have a clear path to quantum-readiness when algorithms are finalized for production use.

## ✓ Transparent and flexible pricing

Some providers charge per-certificate fees, per-CA fees, or premium prices for basic PKI features. These providers may market their solutions as affordable, especially if they're bundled with other offerings, but add-on costs and fees quickly mount. Ask hard questions about licensing and packaging. It's critically important that you have the flexibility to scale up operations without breaking the bank.

### QUICK TIP

Whether you're deploying PKI on-premises or in the cloud, look for solutions that are available on Azure, AWS, or Google Cloud. Vendors that transact and deploy through cloud marketplaces allow you to take advantage of your already-committed cloud spend for your PKI project.

# Extensibility

## Integrate with DevOps, IoT, and enterprise systems

Organizations today leverage PKI to authenticate and encrypt dozens of applications across the business – users and devices on the network, web servers and load balancers in the data center, VMs and microservices in the cloud, and mobile and IoT devices at the edge. It goes without saying – a modern PKI just doesn't work without extensibility.

To get the most out of your PKI and to meet all of your use cases now and into the future, the solution should support:



### Standard enrollment protocols

An ultra-extensible PKI should be built on standards-based, open protocols that enable programmatic enrollment and renewal of certificates at scale. Be sure that your PKI solution supports a broad range of standard protocols, including ACME, EST, CMP, and SCEP. Avoid solutions that require additional licensing or servers for this functionality.



### Windows auto-enrollment

Auto-enrollment is still widely used to provision Active Directory-issued certificates to Windows servers and clients. Look for a solution that can augment and integrate with AD auto-enrollment environments, as well as unified endpoint management (UEM) platforms, like Microsoft Intune.



### REST API

The solution you want will provide value upfront, will work with both modern and legacy systems, and will work across multiple siloed apps. Beyond standards-based protocols, your PKI provider should offer proprietary APIs that empower teams to integrate with custom workflows and applications.

## QUICK TIP

SSH certificates are a popular alternative to password and key-based authentication. However, many providers don't support it out of the box and instead require a separate product for SSH key and certificate management. Avoid unnecessary costs and look for PKI solutions that support SSH certificates out of the box at no additional cost.

## ✓ CI/CD and DevOps integrations

Application and operations teams need fast, easy access to short-lived certificates to support TLS and mTLS, ingress, and code signing use cases. Look for pre-built and well-documented integrations with popular secrets managers, container orchestration frameworks, and service mesh tooling (e.g., via cert-manager). Don't forget to ask for documentation, demo videos, and available GitHub repos to ensure the integrations your teams need are supported.

## ✓ IoT ecosystem integrations

If you're manufacturing devices, implementing security by design is tough. Find a solution that supports on-site issuance locally on the factory floor or in an OT environment. Ensure that it can integrate with your manufacturing toolchain and support lightweight enrollment protocols, like EST and EST over CoAP, as well as protocols that allow for provisioning of birth certificates in greenfield deployments, like CMPv2 with 3GPP.

## ✓ Multiple certificate formats, including X.509, SSH, C-ITS, Matter, and others

Today, you may be issuing standard X.509 certificates (SSL/TLS, code signing, document signing), but as new use cases arise, be sure that you'll be able to support shorter-lived certificates and different formats, such as SSH certificates that serve as a more secure and efficient alternative to SSH keys. Depending on your industry, you may also need to support industry standards, like eIDAS and ePassports (ICAO), C-ITS for automotive, or Matter for Smart Home devices.

# Scalability

## Enable on-demand issuance and reliable uptime

Gone are the days of one or two CAs behind the four walls of the data center. Now PKI is everywhere, and the average organization has more than 250,000 active certificates.\* That number can look much different for your organization — higher or lower — but there's no denying that to support the business, PKI must be able to scale.

To assess whether a PKI solution will meet your organization's need for scalability, consider:

### On-demand provisioning

As new use cases and projects are initiated, the last thing teams want is to wait weeks for a new certificate or Issuing CA (ICA). Make sure — no matter which deployment model you choose — you're able to spin up a new ICA or issue a new certificate within minutes, not days. Ideally, you should be able to automate ICA configuration and deployment steps for scalable, repeatable provisioning.

### Horizontal scalability

As the demand for certificates grows, your PKI will need to flex and scale. Look for solutions that can integrate with your existing database and HSM solutions, so you can replicate database or HSM instances and simply cluster PKI instances to load balance the demand. Avoid solutions that only work with a built-in database or require additional servers for each new CA, which works at a small scale but will not support larger deployments.

# 256k

Average number of internally issued certificates within organizations

2023 State of Machine Identity Management Report





## ✓ High availability

If a CA is down, certificate issuance and revocation grind to a halt. Worse yet, if a CRL or OCSP endpoint isn't available, you cannot validate trust, which can result in widespread downtime and risk. Be sure the PKI solution you choose meets your expected level of uptime and availability. If you're deploying PKI software, you should be able to cluster CA and revocation nodes. If you're evaluating SaaS or managed solutions, ensure they provide guaranteed SLAs for CAs and CRL/OCSP.

## ✓ Scalable licensing model

If you're a mid-size company, you might issue thousands of certificates. If you're a global enterprise, you likely issue hundreds of thousands, if not millions. No matter the case, licensing models should be clear, transparent, and allow you to start small and scale up without incurring heavy costs as you grow.

## ✓ Disaster recovery and restoration

Stuff happens. The question is, what happens next? One of the many things you want to cover during the PKI design phase is a plan for disaster recovery. Seek solutions that can easily replicate and export PKI configurations between test, backup, and production environments, so you can easily restore your environment in the event of a system failure.

## ✓ Multi-cloud and global availability (SaaS)

If your business operates on a multi-cloud model, avoid point solutions that require different configurations and create siloes between different cloud and on-prem environments. Look for solutions that can serve as a single PKI platform across a hybrid or multi-cloud model, with the ability to deploy PKI components in multiple clouds and availability regions.

# Certificate management

## Visibility, governance, and automation for certificates

If PKI is on one side of the equation, certificate lifecycle management is on the other. In some cases, you may not need to worry as much about lifecycle events like renewal and provisioning; protocols, such as ACME, SCEP, and EST, may work just fine.

In many cases, though, you'll need more than just basic enrollment and revocation. Certificate lifecycle management extends PKI to deliver full visibility, governance, and automation of certificates issued from any PKI or CA, whether public or private, cloud or on-prem.

To avoid outages or audit failures that result from untracked certificates, seek vendors that offer fully integrated PKI and certificate management so you can:

### Manage certificates across any PKI or CA platform

It's important to simplify and consolidate PKI wherever possible, but the reality is that most organizations use multiple PKI and CA solutions. Look for an integrated PKI and certificate management platform that allows you to centrally inventory and manage certificates from any public, private, or cloud-based CA. Beware, some providers claim to be CA-agnostic but only integrate with a very limited set of third-party CAs.

### Find and inventory certificates on the network, in the cloud, and from your CAs

You can't track what you can't see; discovery is the most critical step to avoiding unexpected outages. Vendors should provide multiple discovery tools that you can deploy across segmented networks and clouds, including SSL/TLS scanning, real-time synchronization with CAs, and deep discovery of key and certificate stores that won't show up on the network.


[LEARN MORE](#)

## Ready to dive deeper?

Get the guide to evaluate certificate lifecycle management solutions in the Buyer's Guide for Certificate Lifecycle Automation.

[Download now](#) ↗





## **Improve productivity with self-service and delegated ownership**

A registration authority (RA) provides self-service enrollment, but the buck stops there. Certificate lifecycle management takes it a step further with a single, centralized interface where admins can enforce enterprise-wide policies to ensure the use of compliant and approved CAs, crypto-standards, and trust levels. These solutions should also provide role-based access controls and built-in approval workflows, so application owners can make self-service requests and manage certificates on their own.

## **Automate the full lifecycle of certificates**

Certificate lifecycle management goes beyond basic protocols to automate the renewal, provisioning, and installation of certificates using an agent-based or agentless model. The vendor should support full automation for a wide range of integrations, including load balancers, web servers, cloud services, firewalls, and networking equipment.

## **Enable crypto-agility**

With shorter TLS lifespans, certificate compromises, and quantum threats on the horizon, you need to be crypto-agile. To stay ahead, organizations must be able to quickly identify and remediate certificate-related threats, whether it's a single certificate or thousands. Look for solutions that enable bulk revocation and seamless transition to a new CA without complex, manual processes involved.

## **Integrate with enterprise systems, such as ITSM, PAM, and SIEM tools**

To get the most out of your investment, PKI and certificate management should be tightly integrated with your organization's cybersecurity stack. Any solution should integrate with privileged access management (PAM) tools, IT service management and workflow engines for ticketing, and other critical systems via a robust REST API or pre-built plugins.

# Vendor compliance, security, and services

## A trusted and reliable PKI solution provider

Finding the right fit for your organization isn't all about features and functionality, especially if you're evaluating a vendor to host and operate your organization's PKI. Look beyond the software; consider their security posture, software supply chain, and compliance certifications.

To assess the value of any PKI solution, evaluation criteria should also include:

### Comprehensive compliance

Remember, PKI is critical infrastructure. Be sure that the CA software and crypto libraries behind your new PKI solution are compliant with industry-standard frameworks, which include FIPS and Common Criteria certifications. Also, ensure that built-in logging capabilities are designed to fulfill audit logging requirements for any audits that may impact your PKI.

### Regular audits and certifications

Beyond the software and technology, it's just as important to evaluate whether vendors are regularly audited and certified against industry standards. Certifications may include SOC 2 Type II, FedRAMP, and ISO standards for cloud-hosted services, as well as certifications with industry-specific standards, such as PCI DSS and GDPR.

## ✔ Software supply chain transparency

Transparency is the key to trust. Knowing the software components that go into your PKI solution gives you trust and confidence that you're making the right investment. Ask vendors for a software bill of materials (SBOM) to get full visibility into any third-party CA services, software, and crypto libraries they may use. Ideally, opt for vendors that develop and operate their own CA software, crypto-libraries, and services to minimize supply chain risks.

## ✔ Secure facilities and processes (SaaS)

If you are trusting a PKI provider to host and maintain your organization's root of trust, it better be secure. Ask hard questions about how the root is created and where it is hosted, the security measures in place to protect access to the root and issuing CAs – both physical and virtual – and the processes in place to ensure that it remains secure throughout its lifecycle.

## ✔ Reliable service and global support

This may seem obvious, but it's an important factor when you're working with critical infrastructure. Ask questions about the extent of technical and customer service support – and understand what you're really getting for your money. Important factors include 24/7 support, response times, and available self-service training and documentation.

“ For Siemens AG, trust is everything. PKI is an essential building block to establishing cryptographic trust across a growing number of its products and enabling an enterprise-wide zero-trust policy.”

Rufus Buschart, Head of PKI,  
Siemens



04

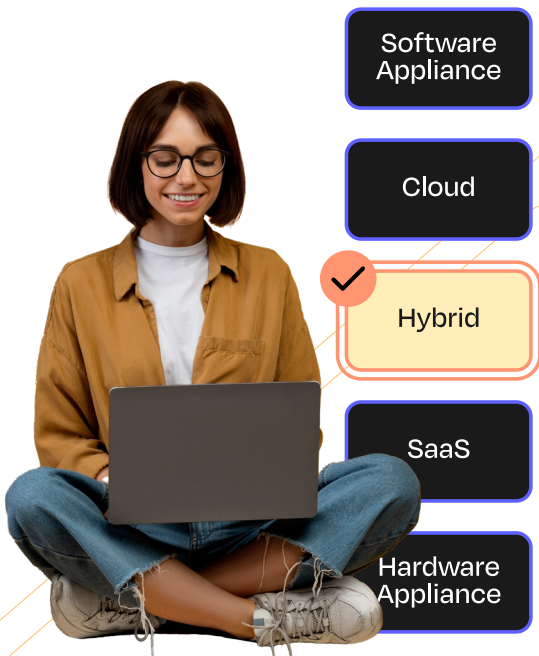
# Deploy your PKI, *your way*, with Keyfactor

Deploy fast. Run anywhere.  
Scale on-demand.

IT and IoT environments are complex, and they will only become more complex as organizations embrace connectivity to drive growth and value. To establish trust in these increasingly complex environments, businesses rely on thousands – sometimes millions – of digital certificates to authenticate and verify the identity of devices, workloads, and a growing number of connected things.

To meet demand, IT and security teams need a new approach to PKI. One that doesn't add to the complexity, but instead simplifies infrastructure and streamlines management while scaling with demand.

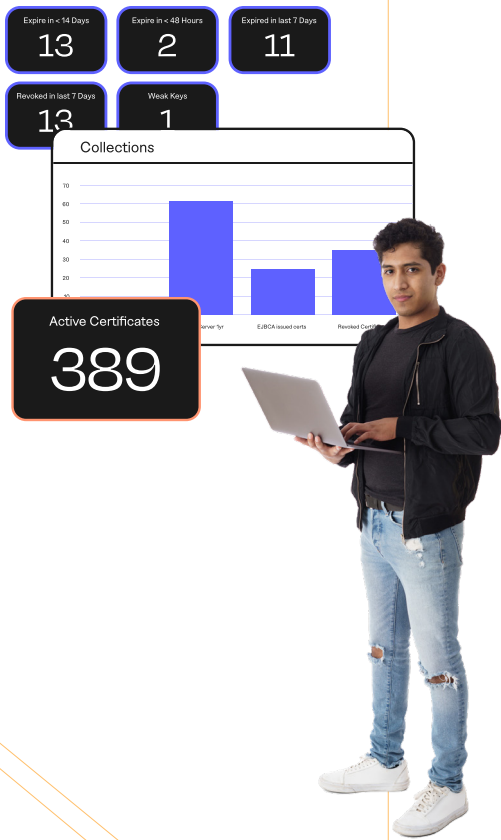
## That's where Keyfactor comes in.



Keyfactor provides unmatched flexibility to deploy PKI however and wherever your team needs it – whether in the cloud, in the data center, or at the edge. It's PKI your way.

Only Keyfactor delivers an integrated, full-stack solution for PKI and certificate lifecycle automation that deploys fast, runs wherever your business does, and integrates with virtually any use case. It achieves this by helping you:

- ✓ **Deploy your way** with the only PKI solution that runs however and wherever you need it – in the cloud or on-prem, turnkey or fully configurable, as a software appliance, a hardware appliance with a built-in HSM, a container, in the cloud, SaaS-delivered or a fully managed service.
- ✓ **Simplify PKI** with a full-stack solution that combines everything you need to run PKI in a single platform – certificate authorities (CAs), registration authorities (RAs), validation authorities (VAs), protocols and APIs, an administrative GUI, audit and transaction logs, and a built-in database.
- ✓ **Meet any use case** with a wide range of supported enrollment protocols, certificate formats, algorithms, standards, SOAP and REST interfaces, as well as a self-service RA interface for application owners.



- ✓ **Scale without limits** by running your entire PKI on a single instance, segmenting CAs and RAs across multiple nodes to improve security and availability, or cluster nodes for massive scale.
- ✓ **Maintain compliance** with detailed audit and transaction logs, certifications for Common Criteria, CSfC, SOC 2 Type II (hosted), and proven deployment in numerous ETSI/eIDAS and WebTrust-audited environments.
- ✓ **Prevent outages and downtime** with integrated lifecycle management to discover, track, and manage certificates issued from any public, private, or cloud-based CA, all from one console.
- ✓ **Improve productivity and operational efficiency** by automating tedious, manual tasks, including certificate renewal, provisioning, and installation across all of your organization's servers, load balancers, cloud workloads, and more.
- ✓ **Stay agile** with the ability to easily re-issue and renew certificates from a new CA and support for a wide range of algorithms, including RSA, ECC, and NIST candidate post-quantum algorithms, to begin testing in your lab environment.

“ PKI is an absolute foundational piece to what we're building. Without EJBCA, we couldn't have what we have. It is a key pillar of the future of our products.”

—  
Jason Slack, Director of Engineering, Truepic

# Next Steps

Find the right fit for your organization today

Choosing the right PKI solution has never been more important. Let your use cases, team skillsets, and risk exposure guide the selection process, and no doubt you'll find the right fit. Here we've provided tools and resources to help you take the next step.

## Learn More

Discover how Keyfactor can help you simplify PKI management, reduce complexity, and scale with the demands of modern IT and IoT environments.

[Learn about EJBCA Enterprise \(PKI\)](#) ↗

[Learn about Command \(CLM\)](#) ↗

[Learn about Command for IoT](#) ↗

## Try it out

Ready to get hands-on? Keyfactor makes PKI and certificate management easy and accessible for everyone, with open-source and trial-based versions available in the cloud.

[Try EJBCA on AWS](#) ↗

[Try EJBCA on Azure](#) ↗

[Download EJBCA Community](#) ↗

## Explore resources

Not quite ready to take the next step? No problem. Explore additional resources to help you build the business case and map your path to success.

[PKI Maturity Model](#) ↗

[Certificate Management Maturity Model](#) ↗



# Evaluate Keyfactor

Want to dive deeper in your evaluation?

Schedule a meeting with a Keyfactor expert to discuss your use case and get a live demo to see how our solutions can help you.

Speak with an expert [↗](#)



## KEYFACTOR

Keyfactor brings digital trust to the hyper-connected world with identity-first security for every machine and human. By simplifying PKI, automating certificate lifecycle management, and securing every device, workload, and thing, Keyfactor helps organizations move fast to establish digital trust at scale — and then maintain it. In a zero-trust world, every machine needs an identity and every identity must be managed. For more, visit [keyfactor.com](https://www.keyfactor.com) or follow [@keyfactor](https://twitter.com/keyfactor).

## Contact us

- [www.keyfactor.com](https://www.keyfactor.com)
- +1 216 785 2946  
(North America)
- +46 8 735 61 01  
(Europe)