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AppViewX PKI+

Ready-to-consume, highly scalable and **secure PKI-as-a-Service (PKIaaS)** with **End-to-End Certificate Lifecycle Management (CLM)**

Overview

The number of machine identities in a typical enterprise has now surpassed the number of human identities and the need to secure communications and transactions is now more critical than ever. Public-key cryptography is a widely used practice for encrypting data in transit and enabling user and device authentication. Digital certificates are the standard to establish and extend trust during communication. These certificates are used as the identity for machines and are provided by both public and private Certificate Authorities (CAs) depending upon specific use cases.

As the requirement for certificates grows, especially certificates that need to be trusted within the organization, enterprises have to set up their internal public key infrastructure (PKI) so that private CAs can be created internally.

Technically creating a CA and signing a certificate is very simple. If it is being done for local testing, anybody can sign the certificate without much effort. However, when the certificates provided by a CA are to be used in production environments, there is more complexity involved.

Challenge Setting up and scaling on-premises
enterprise PKI is costly and complex not just because of the upfront requirement of computing resources and security expertise but also because of continuous tedious operations and upgrade requirements.

Solution Setting up a secure, scalable, and
compliant cloud-based public key infrastructure (PKI) is now easier and faster than ever with AppViewX PKI+. PKI+ combined with AppViewX CERT+ provides a centralized solution for modern private PKI and end-to-end certificate lifecycle automation.

Benefits

AppViewX PKI+ allows enterprises to easily set up a robust and secure certificate authority (CA) hierarchy as well as other crypto policies without investing in costly PKI hardware or scarce security professionals. Modernize and simplify your private PKI and maximize security and compliance with AppViewX PKI+.

Challenges with On-Premises PKI

Requires a lot of time, upfront investment, and constant maintenance

The first thing that comes to mind when setting up on-premises PKI (or internal CAs) is the need for security experts who will design the PKI, set up policies, and maintain it continuously. With crypto expertise being scarce and expensive, operating on-prem PKI becomes even more challenging.

The next thing is the costly required hardware for encryption and storing private keys. The procured hardware needs to be deployed at a physically secured place with proper guarding in place. The hardware also needs to be refreshed periodically to meet standards and compliance requirements. The same applies to the software which can be costly and requires periodic upgrades. Overall it is a huge expense both from CAPEX and OPEX perspectives.

Then, lengthy policies and procedures need to be created and followed throughout operations. In many cases, these policies and procedures slow down the speed of business innovation as teams request and wait for certificates to be issued.

After ensuring these things are in place, enterprises finally can securely create CAs and issue certificates. Provisioning of certificates to the devices and applications that need them must be done either manually or using a separate certificate lifecycle management (CLM) system that needs to be implemented.

AppViewX PKI+

Secure, Ready-to-Use, and Highly Scalable PKI-as-a-Service

AppViewX PKI+ is a turnkey, scalable and compliant PKI-as-a-Service. Enterprises can now set up a robust and secure private CA hierarchy in minutes and start issuing private trust certificates right away. There is no PKI expertise required and no hardware or software to buy or manage. PKI+ with AppViewX CERT+ combines modern private PKI with end-to-end certificate lifecycle automation for provisioning private certificates as well as public certificates from external CAs, all from a centralized console.

Features and Benefits

The biggest benefit of AppViewX PKI+ is that enterprises do not need to invest upfront in expensive hardware and security experts. Instead, the management and security of your enterprise PKI is handled as a cloud service by AppViewX, allowing your team to concentrate on more critical aspects of your business.

Robust and Secure CA Environment

With AppViewX PKI+ all CA keys are secured using FIPS 140-2 Level 3 certified Cloud HSMs with high availability. All root CA creation functions including the key ceremony are performed virtually and with full security. Strict access and security policies are enforced for managing CAs, including multi-factor authentication for accessing Root CAs.The Root CA can also be kept in a disabled state providing separation from the rest of the PKI and limiting its exposure.

Simplified PKI Management and Operations

AppViewX PKI+ allows you to simplify and centralize your private PKI architecture and set up tailored custom CAs in minutes while meeting the highest standards of security and compliance.

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Key pairs are either generated on the target device or in an HSM eliminating the need for human access to the key. This prevents key roaming and any potential key compromises. Certificates can be automatically requested and provisioned either via auto-enrollment protocols or via AppViewX APIs. AppViewX PKI+ coupled with AppViewX CERT+ automates the lifecycle of keys and certificates end-to-end, from discovery to enrollment to renewal or revocation, irrespective of which public or private CA issues them.

Highly Available and Scalable Infrastructure

AppViewX PKI+ gives you the option to scale on demand as per your business requirements and maintain an architecture that is always up-to-date (no upgrades required). As the need for certificates in an organization increases, enterprises can instantly scale the PKI in different geographies without disrupting the business processes. This eliminates the need for significant planning and additional hardware to prevent delays in scaling PKI.

Reduced Operating and Overhead Costs

Setting up a secure private PKI from scratch involves upfront investments in technology resources (hardware, software, HSMs, etc.) and hiring skilled personnel to build, manage, and maintain it 24x7. With AppViewX PKI+, you get an enterprise-grade PKI that is ready to use. You can offload time-consuming and error-prone infrastructure tasks to the cloud and significantly lower your total cost of ownership.

Flexible Consumption Models

AppViewX PKI+ is delivered as a cloud-based service and the powerful certificate lifecycle management (CLM) capabilities of AppViewX CERT+ can either be consumed as a service or deployed in the enterprise network. Irrespective of how the solutions are consumed, the features and benefits remain the same and are available from one centralized console.
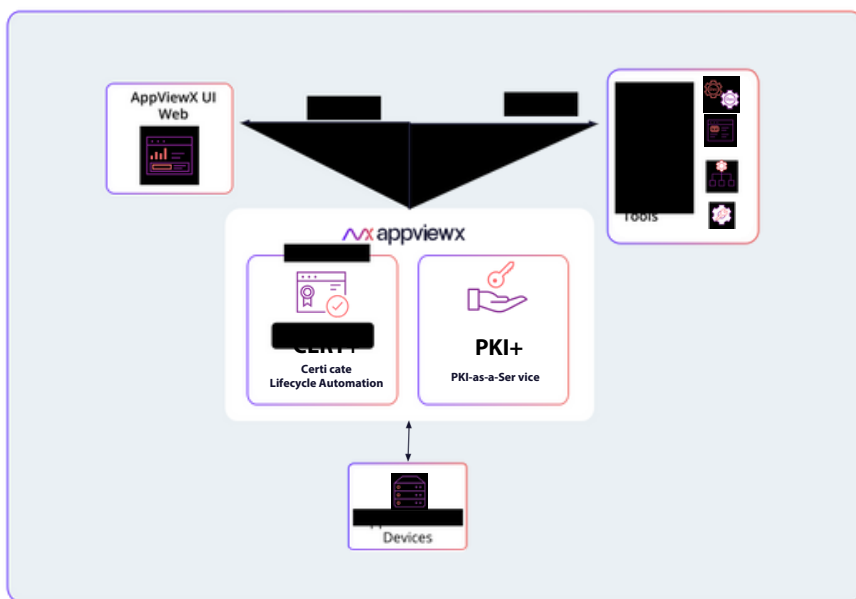
SaaS – Operated by AppViewX

Available as a service, AppViewX CERT+, and PKI+ are fully managed and updated by AppViewX. Customers can directly set up AppViewX CERT+ and AppViewX PKI+ accounts and start using the products. For connecting to the non-public corporate network segments without poking a hole into the corporate firewall, AppViewX provides a Cloud Connector for both products that need to be installed in the private network.

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Optional AppViewX CERT+ Deployment Models

To complement the cloud native AppViewX PKI+, the CLM automation capabilities of AppViewX CERT+ may also be deployed within a customer's environment in hypervisor-based VMs, private clouds, or public clouds using AWS, GCP, Microsoft Azure, and others. AppViewX CERT+ can be installed on any virtual machine instance running CentOS or RHEL operating system. As AppViewX CERT+ is a Kubernetes-based application, it can also be installed in a managed Kubernetes environment like EKS, AKS, GKE, RedHat Openshift, Rancher, and others.

Security simplified with AppViewX

Trusted by one out of every five Fortune 100 companies, AppViewX CERT+ powered by enterprise-grade automation, helps with smart discovery, visibility into security standards and centralized management of certificates and keys across hybrid multi-cloud environments.

Scan QR code to learn more about how AppViewX can be your partner of choice in your cybersecurity journey

To know more, visit **www.appviewx.com**

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