

Hong Kong's Leading Healthcare Provider Strengthens Security and Boosts Efficiency by Optimizing Certificate Lifecycle Management with AppViewX AVX ONE CLM



About the Customer

One of the largest public healthcare providers in Hong Kong dedicated to delivering high-quality and affordable medical services and improving public health. With a workforce of over 90,000, they are a "people-first" organization, handling nearly 90% of the community's inpatient needs.

The healthcare provider operates a robust patient portal for personalized digital health services. As digital certificates safeguard sensitive patient records and communications across the patient portal, managing them efficiently is critical. However, a growing inventory and the complexity of healthcare systems made certificate lifecycle management challenging.

Pain Points

- Certificate inventory management issues
- Missed certificate renewals and outages
- Insecure certificate distribution methods
- Operational overload with manual CLM processes



The AppViewX AVX ONE CLM Solution

- Centralized certificate inventory and insights
- End-to-end CLM automation through out-of-the-box and custom automation workflows
- Certificate self-service and role-based access control (RBAC)
- Integration with Entrust HSM for private key security
- Responsive and professional support
- High scalability and performance

Results

- A single source of truth for all certificate information
- Timely renewals, zero risk of outages
- Optimized CLM, maximum efficiency
- Simplified certificate access for all teams
- Simplified audits and continuous compliance
- Smooth and hassle-free onboarding experience

Challenges

The healthcare provider relies on a patient portal for delivering personalized digital health services. This online portal provides patients with easy access to their appointments, test results, billing, prescriptions, insurance information, medical history, and more—all in one place.

To protect sensitive patient records and ensure secure communication across the patient portal, they use digital certificates and PKI (public key infrastructure) for trusted identities, authentication, and encryption. While this ensures secure communication between devices, systems, and external networks and maintains the confidentiality and integrity of patient data, the complexity of healthcare systems and ecosystems at large makes managing PKI and certificates a challenging task.

Here's what they faced:



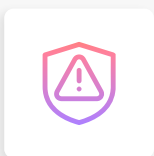
Inventory Management Issues:

Keeping track of digital certificates was a constant struggle. Without a centralized inventory, security teams had limited visibility into certificate statuses and upcoming renewals. This lack of oversight increased security gaps and led to inefficiencies and wasted resources.



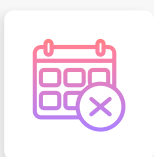
Manual Inefficiencies:

Before AVX ONE CLM, the customer managed their digital certificates manually—from processing certificate request forms to enrolling and delivering certificates. This manual approach created bottlenecks, delays, and frequent errors. As certificate volume grew, the process became overwhelming, straining operational teams and increasing the risk of expirations, misconfigurations, outages, security gaps, and compliance failures.



Security Risks:

Issued certificates were sent to certificate owners via email and Instant Messenger. Without a secure transmission method, critical certificates were at risk of being intercepted or accessed by unauthorized parties, leaving the system vulnerable to cyberattacks.



Missed Renewals:

Certificate owners often forgot to renew their certificates. Without proactive expiration alerts, renewals became an afterthought—until a failure occurred, leading to unexpected service disruptions. Some users mistakenly assumed their certificates were installed and active, only to face sudden downtime when they attempted to access their applications and services.

Choosing the Right Solution

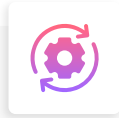
After assessing their manual certificate management processes and the challenges they faced, the healthcare provider recognized the need for a comprehensive Certificate Lifecycle Management (CLM) solution. They sought a platform that would resolve their current challenges and also support future growth.

Here's what they prioritized for choosing the right solution:



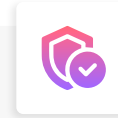
Greater Visibility

Improve certificate tracking and inventory accuracy. Gain real-time certificate visibility and monitoring to streamline renewals, prevent unexpected certificate expirations, reduce vulnerabilities, and ensure regulatory compliance.



Automated CLM

Automate and streamline the entire certificate lifecycle—from request through issuance to delivery—to eliminate tedious manual tasks, improve efficiency, and remove the risk of human error.

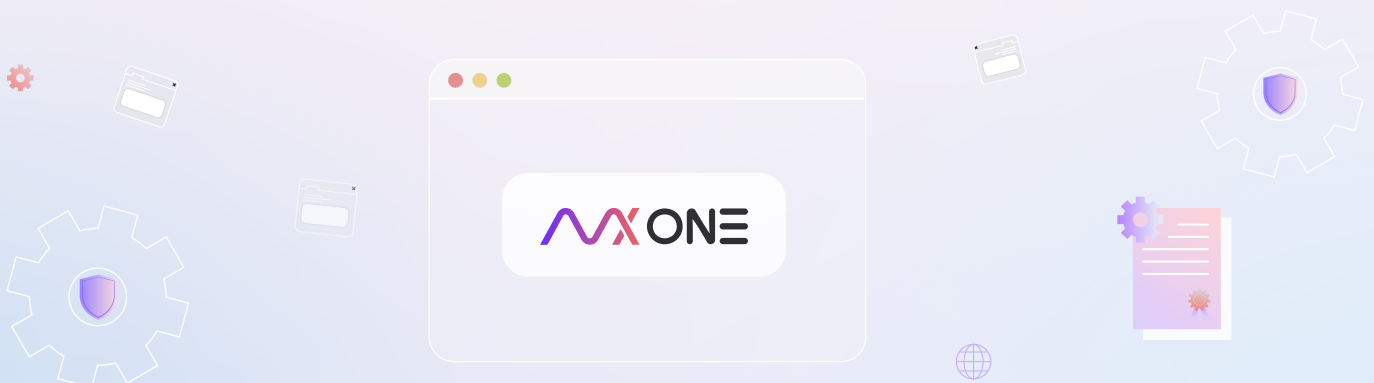


Robust Security

Move away from the practice of delivering issued certificates via email and Instant Messenger. Adopt a centralized delivery system that's both secure and user-friendly, with built-in audit trails to satisfy compliance requirements.

Selecting AppViewX AVX ONE CLM

After evaluating multiple CLM vendors in the market, the healthcare provider chose AppViewX AVX ONE CLM as their new certificate lifecycle management solution. The all-in-one service that the AppViewX AVX ONE CLM solution offered meant users could seamlessly request certificates, obtain manager approvals, automate certificate provisioning, receive notifications, and manage their certificates—all within a single, centralized system. This end-to-end automation was the key factor in their decision.



Here are some of the other compelling reasons why the customer chose AppViewX AVX ONE CLM over the competition.

1. Centralized Certificate Inventory

AVX ONE CLM Consolidates all discovered certificates in a centralized inventory along with essential certificate information such as the certificate location, owner, issuing CA, expiry date, chain of trust, crypto standards, and more. This inventory serves as a single source of truth for all certificate types, from any public or private CA, across every endpoint.

2. Advanced Automation Workflows

AVX ONE CLM offers an extensive catalog of out-of-the-box (OOB) and customizable automation workflows. OOB workflows are designed to automate and simplify repetitive certificate tasks like alerting/escalations, enrollment, provisioning, and installation. For organizations with unique security policies and compliance requirements, AVX ONE CLM also offers fully customizable workflows, enabling PKI admins to tailor certificate processes to their unique business needs—like implementing one-click or zero-touch renewals. These intelligent workflows also integrate seamlessly with ITSM, DevOps, and other security and IT tools, ensuring maximum flexibility.

3. Certificate Self-Service

AVX ONE CLM offers a low-code page builder that enables PKI administrators to easily create custom self-service pages for different teams and user roles. This empowers cross-functional teams to generate, request, and issue certificates from approved Certificate Authorities (CA) on their own—simplifying certificate operations for all users across the organization. For more advanced customizations, administrators can even design and integrate HTML web pages into self-service pages, offering a seamless and highly personalized experience for users, aligned with the company's branding.

4. Role-Based Access Control (RBAC)

AVX ONE CLM enforces RBAC to enable conditional access to certificate tasks, ensuring secure certificate provisioning across teams. Certificates can also be tagged with additional metadata and grouped by business needs, applications, or teams, streamlining access and governance.

5. Entrust HSM Integration

For stronger key security, AVX ONE CLM integrates seamlessly with hardware security modules (HSMs). Integration with the Entrust HSM together with automated workflows helps push certificates and keys to associated devices, minimizing human access to keys, preventing unauthorized key roaming and any potential key compromise.

6. Robust Support

From onboarding to ongoing management, AppViewX's responsive and professional support team ensures smooth implementation and provides assistance whenever needed. AppViewX also provides each customer with a dedicated Customer Success Manager and Design Architects, all focused on driving the success of the project and providing expert guidance every step of the way.

7. Scalability and Performance

With over 8,000+ certificates to manage, scalability and performance was critical for this healthcare provider. AVX ONE CLM is built to scale effortlessly and accommodate expanding CLM, security, and compliance requirements.

The Result

The customer has been using AppViewX AVX ONE CLM for over 18 months now, and completely transformed their CLM strategy. The healthcare provider has implemented three main CA workflows, covering both internal and external CA processes. This has streamlined their certificate management while maintaining a high level of security and compliance. As a result, they are now able to effectively and seamlessly manage over 8,000 certificates.

Here are some of the best results the healthcare provider achieved with AppViewX AVX ONE CLM:

1. A Single Source of Truth for All Certificate Information

The centralized certificate inventory in the AVX ONE CLM solution significantly improved inventory accuracy, preventing certificates from slipping through the cracks. With the single-pane-of-glass view, security teams are now able to easily track certificates, monitor expirations and vulnerabilities, and proactively prevent outages and security issues.

The ability to add Custom Certificate Attributes has been a game-changer for managing thousands of certificates across the inventory. This robust feature allows custom attributes to easily be added for each certificate—such as requestor, certificate owner, deployment team, and more—providing granular control and enhanced visibility over the growing certificate inventory.

2. Timely Renewals, High Availability, and Compliance

AVX ONE CLM ensures certificate owners never miss an expiration with its intelligent alerting system, which provides advance notifications and an escalation path that alerts other certificate owners if renewals are overlooked. This approach enhances the reliability and availability of critical systems and services.

Additionally, comprehensive audit logs and pre-configured dashboard reports simplify audits and regulatory compliance. Every certificate-related action and configuration change is logged, streamlining both internal and external audits. Customizable compliance reports offer real-time insights that have helped the healthcare provider stay aligned with industry standards effortlessly.

3. End-to-End CLM Automation Driving Maximum Efficiency

Customized automation workflows have helped streamline the whole process for system admins, making it easier for them to request and get digital certificates issued. Certificates are automatically issued, provisioned, and renewed, and even configured to the correct application, eliminating the need for manual effort. As a result, the healthcare provider has seen a remarkable decrease in manpower requirements and a significant improvement in efficiency.

AVX ONE CLM's unique closed-loop automation view brings together visibility, automation, and control of all the certificates in one unified screen. This helps the healthcare provider view all critical details for a given certificate, initiate automation workflows, and control automation progress from a single screen for enterprise crypto-agility.

4. Simplified Certificate Access and Empowered Teams

With AVX ONE CLM's self-service and RBAC capabilities, certificate management is now effortless for internal IT teams. The product team can quickly obtain certificates for their applications, while the CA admin team efficiently maintains the internal CA server integrated with AppViewX for automated issuance. Beyond accessibility, shared self service pages have enhanced collaboration, making teams more self-sufficient and streamlining CLM across the organization.

5. Smooth and Hassle-Free Onboarding Experience

The customer appreciates their seamless onboarding experience with AppViewX. They highlight how AppViewX facilitated a smooth transition to the service, assisting in setting up the solution and developing three Certificate Authority workflows for internal users. They also emphasize the professionalism and efficiency of the AppViewX support team, in their approach and swift resolution of reported issues.

With AppViewX AVX ONE CLM, the healthcare provider has completely transformed the way it manages certificates, gaining unmatched visibility, automation, and control over its certificate ecosystem. By ensuring valid and compliant certificates at all times, they have strengthened patient data protection, ensured seamless access to critical healthcare systems, and maintained continuous and secure uptime for their patient portal. In an industry where reliability, security, and compliance are non-negotiable, AppViewX empowers them to stay ahead—proactively managing certificates with confidence and agility.

AppViewX Inc.,

AppViewX provides digital identity protection solutions that simplify PKI and certificate lifecycle management for modern enterprises. The AVX ONE CLM solution is the most advanced SaaS certificate lifecycle management (CLM) platform for enterprise PKI, IAM, security, DevOps, cloud, platform and application teams. With visibility, automation and control of certificates and keys, AVX ONE enables crypto-agility to rapidly respond to cryptographic changes, mitigate threats, prevent outages, achieve Zero Trust, and prepare for Post-Quantum Cryptography.



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