

Hardware-based Authentication at Enterprise Scale: A Streamlined Approach

DEPLOYING AND SCALING HARDWARE-BASED AUTHENTICATION 10X FASTER

Organizations recognize that hardware-based authentication leveraging certificates, FIDO2, and PKI is essential for Zero Trust security. However, scaling and managing these authentication mechanisms across thousands of users, many thousands of credentials and several different operating systems presents a significant challenge. Organizations need a streamlined, scalable approach to managing authentication keys and certificates without burdening IT teams.

KEY BARRIERS TO EFFECTIVE DEPLOYMENT:

- Credential Lifecycle Management – Managing issuance, renewal, revocation, and recovery at scale.
- Integration Across Environments – Supporting hybrid, on-premises, and cloud-based IT ecosystems.
- User Experience and Adoption – Ensuring seamless authentication without adding friction to daily workflows.
- Compliance and Security – Meeting regulatory standards like FedRAMP while preventing phishing and credential-based attacks.

By automating hardware-based authentication through a centralized credential management system like Axiad Conductor, enterprises can achieve:

- Simplified Certificate Issuance – Automate provisioning and lifecycle management of X.509 certificates and FIDO2 credentials.
- 10x Faster Deployment – Accelerate phishing-resistant MFA implementation up to 10 times faster.
- Zero Trust Alignment – Enforce phishing-resistant MFA across all user groups.
- Optimized User Experience – Reduce authentication friction while maintaining strong security.

OVERCOMING AUTHENTICATION DEPLOYMENT CHALLENGES

Addressing Large-Scale Authentication Challenges

While strong authentication technologies like FIDO and certificate-based methods effectively safeguard an organization's systems, scaling them across diverse IT environments remains a challenge. The key obstacle lies in automating the provisioning and lifecycle management of credentials across thousands of users, platforms, and authentication protocols. Axiad Conductor solves these by:

- Enabling automated issuance, renewal, and revocation of authentication credentials.
- Providing self-service options for users to enroll, recover, or reset credentials without IT intervention.
- Ensuring continuous visibility into authentication workflows and adoption rates.
- Supporting compliance mandates (PCI 4.0, NIST 800-63, CISA, FedRAMP, etc.).

Seamless Integration Across Heterogeneous Environments

Enterprise IT landscapes are complex, consisting of Windows, macOS, Linux, and multi-cloud ecosystems. Axiad Conductor is designed to seamlessly operate within these multifaceted IT landscapes by:

- Integrating with existing IAM solutions like Microsoft Entra ID, Okta, Ping Identity, etc.
- Supporting on-premises, cloud, and hybrid IAM ecosystems with Windows, Mac, and Linux environments without requiring a complete infrastructure overhaul.
- Enabling standardized authentication across complex infrastructures for security consistency.

Customizable Authentication Without Workflow Disruption

- Security teams need flexibility in authentication workflows to balance strong security with user convenience. Axiad Conductor allows:
- Custom authentication workflows based on risk levels, user groups, and compliance needs.
- Integration of certificate-based authentication, FIDO2, Smart Cards, and push MFA.
- User self-service for credential issuance, recovery, and renewal without IT involvement.

As phishing-resistant MFA becomes the standard for secure authentication, enterprises must adopt a centralized approach to credential management, including certificates and hardware security keys. Organizations will be judged not by how many security keys they purchase, but by how many are actively deployed and protecting users. A seamless, automated solution ensures scalable deployments, strengthens Zero Trust security, and future-proofs authentication for years to come.

To read more about how Axiad products can help your MFA evolve without ripping and replacing existing systems, visit us at axiad.com.