

MINDSHARE26

CYBERSECURITY LEADERSHIP FORUM

The CORE of Digital Trust

Fewer Tickets, Stronger Security: PKI Modernization for KRITIS - and Beyond

Lennart Prekel, Eviden Digital Identity

11.06.2026 | WISSENSCHAFTSPARK | GELSENKIRCHEN

EVIDEN

AGENDA

1. Introduction: Example Company
2. PKI Challenges
3. Modern Authentication Approach
4. Automated Certificate Management
5. Business Impact and Benefits

KRITIS: The Energy Context



Large and growing:
~100k employees



Operating
internationally



Energy Supply & Grid Infrastructure

- Reliable electricity & gas supply
- Modernized and digitalized energy networks



Renewable Energy & Sustainability

- Solar energy & heat pump solutions
- EV charging infrastructure



Smart Energy & Decarbonization

- Smart energy management
- Carbon reduction Projects



User Profile Requirements



Users in sensitive environments

Legally required physical 2FA with maximum security.



Engineers in the field

Convenient, ad-hoc access with elevated security.



Office workers

seamless online and offline availability for daily productivity.



External workforce

BYOD support with increased security for contractors.

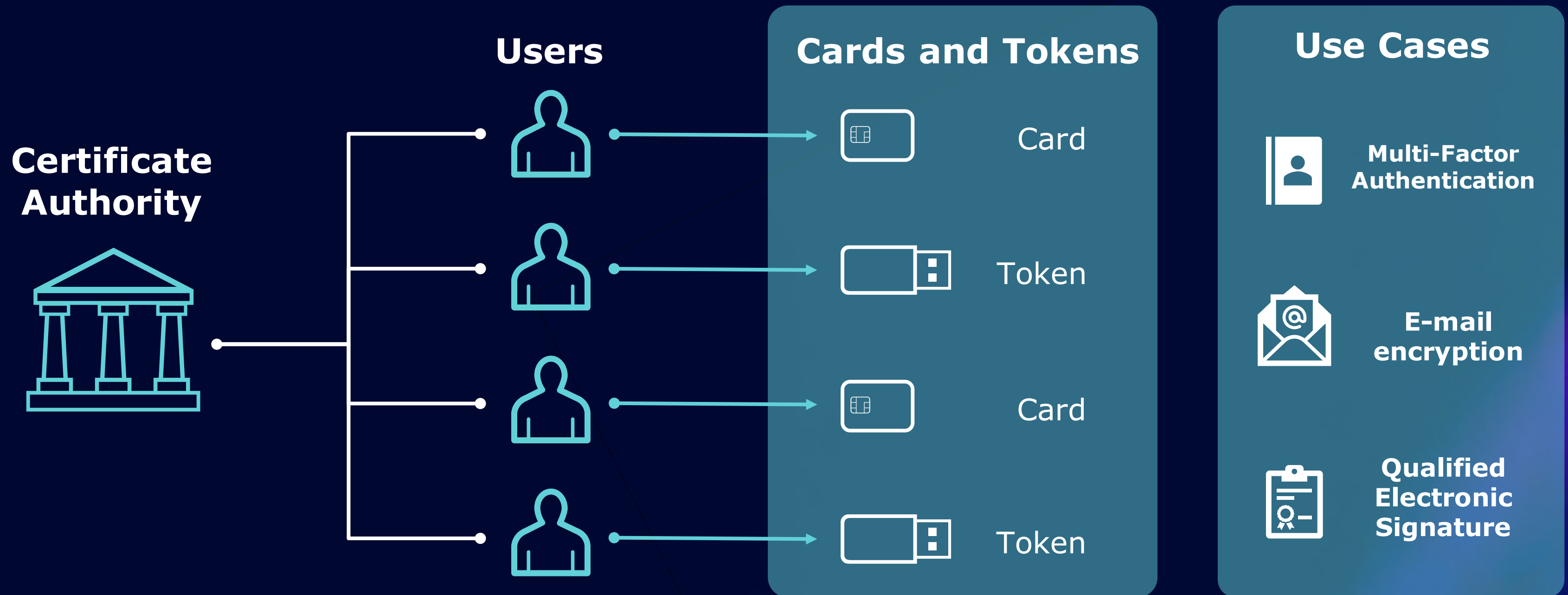


Use of Security Hardware by Employees

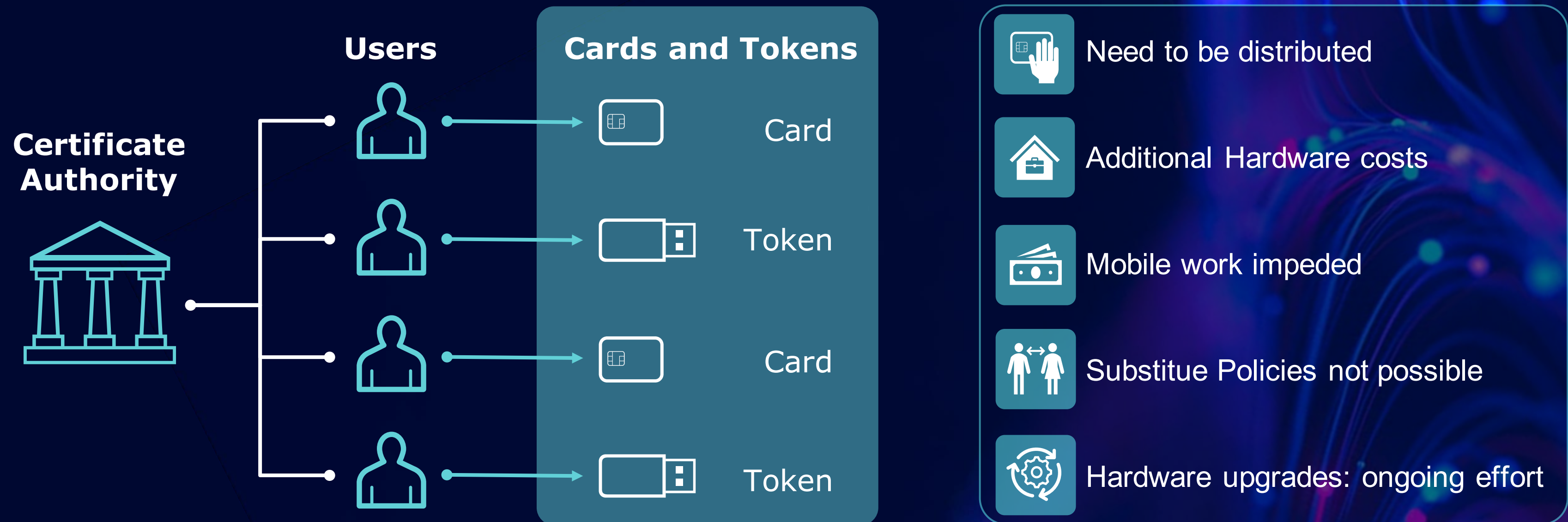
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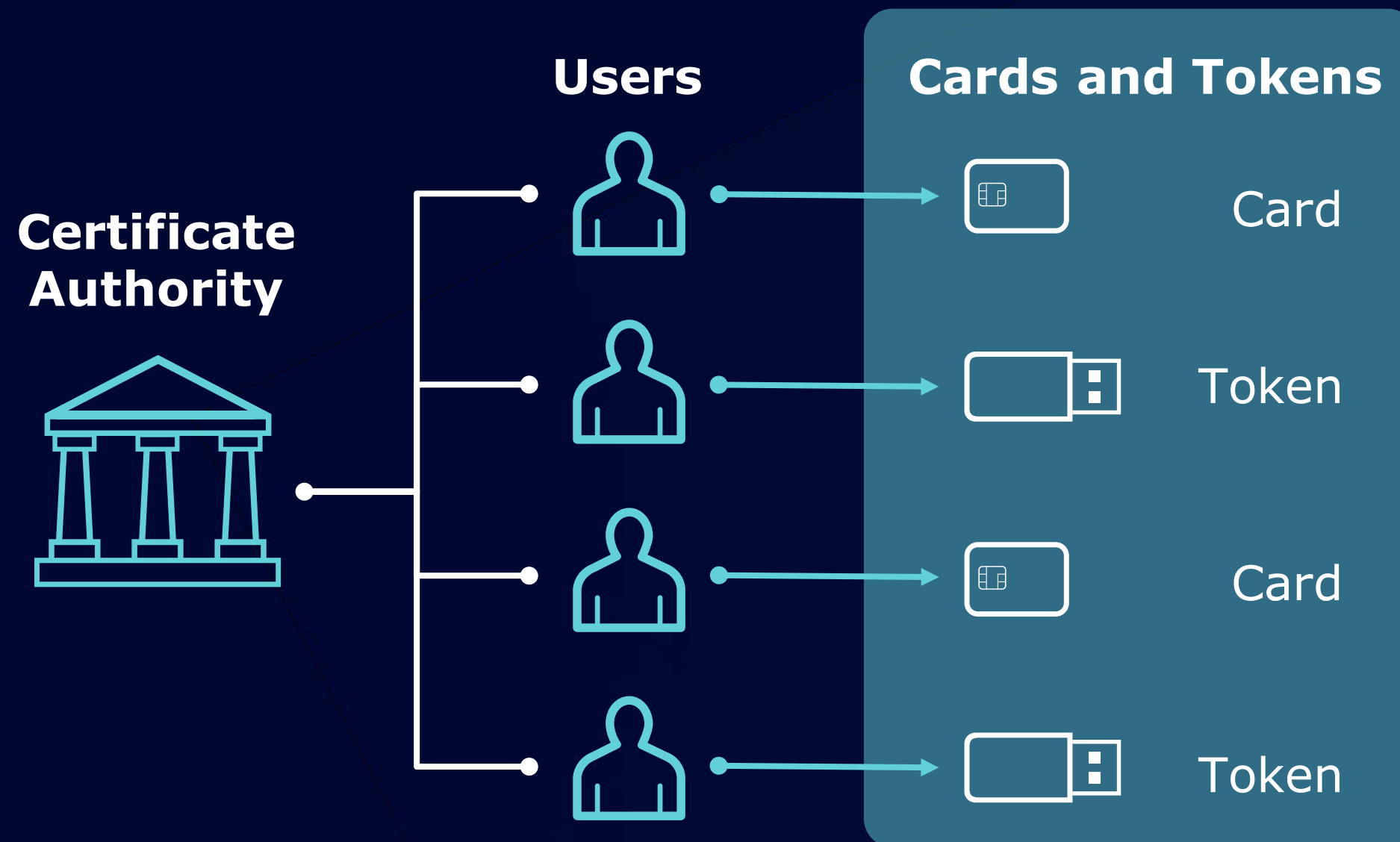
Current PKI Challenges



Why cards and tokens were unpopular

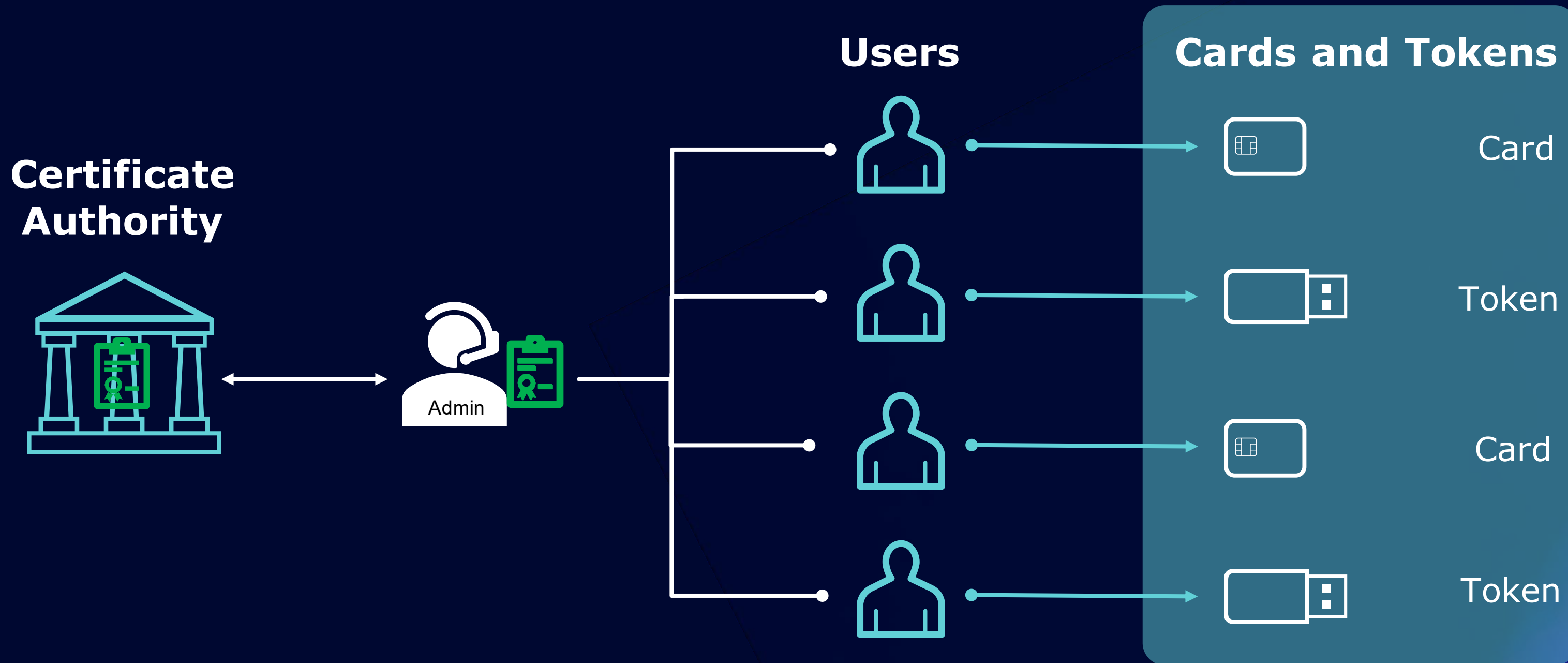


Why cards and tokens were unpopular



**Form factor
replacement required**

Why PKI administration was complicated



Why PKI administration was complicated

General issues:



Complex administration



High costs



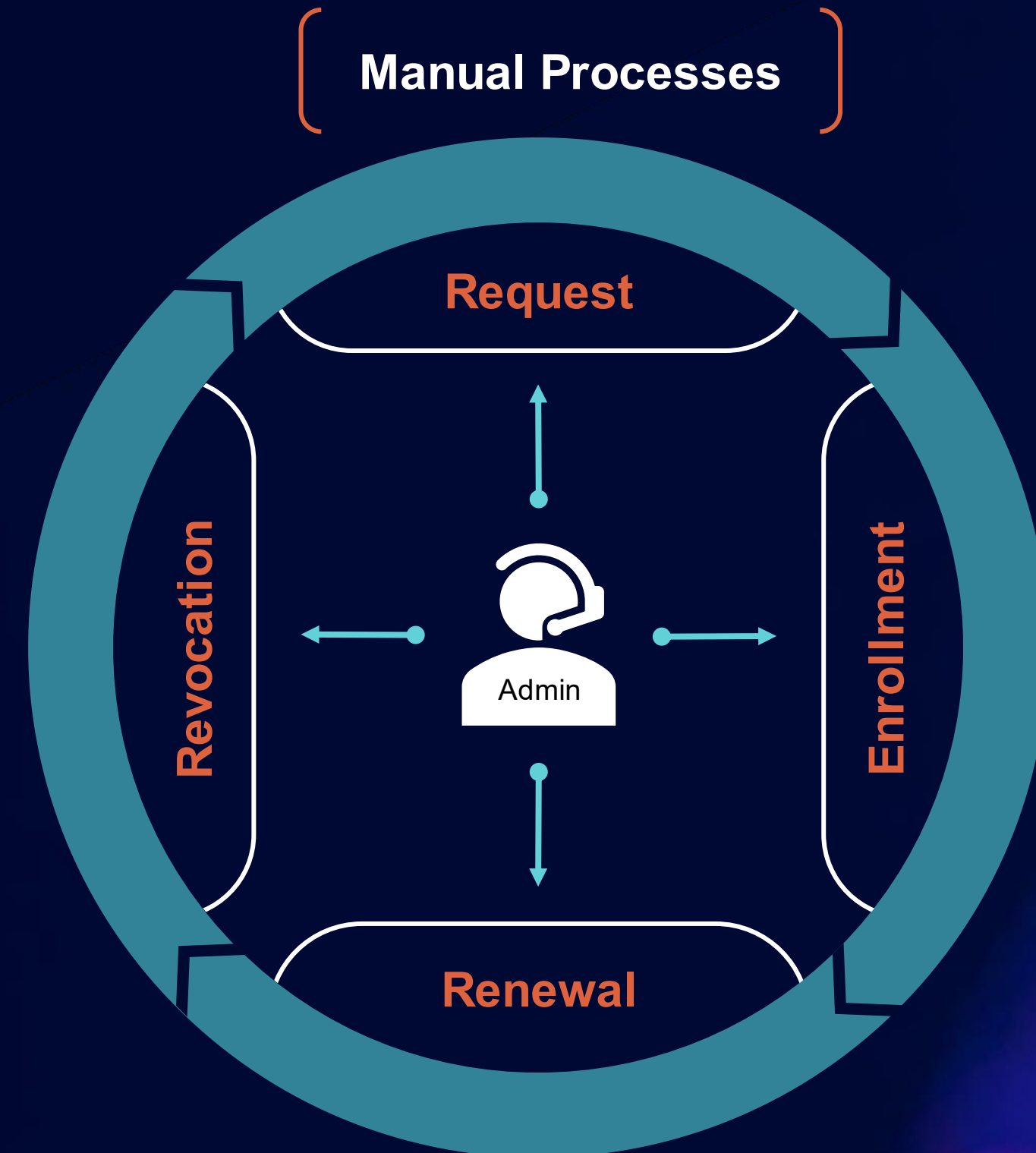
Error-prone



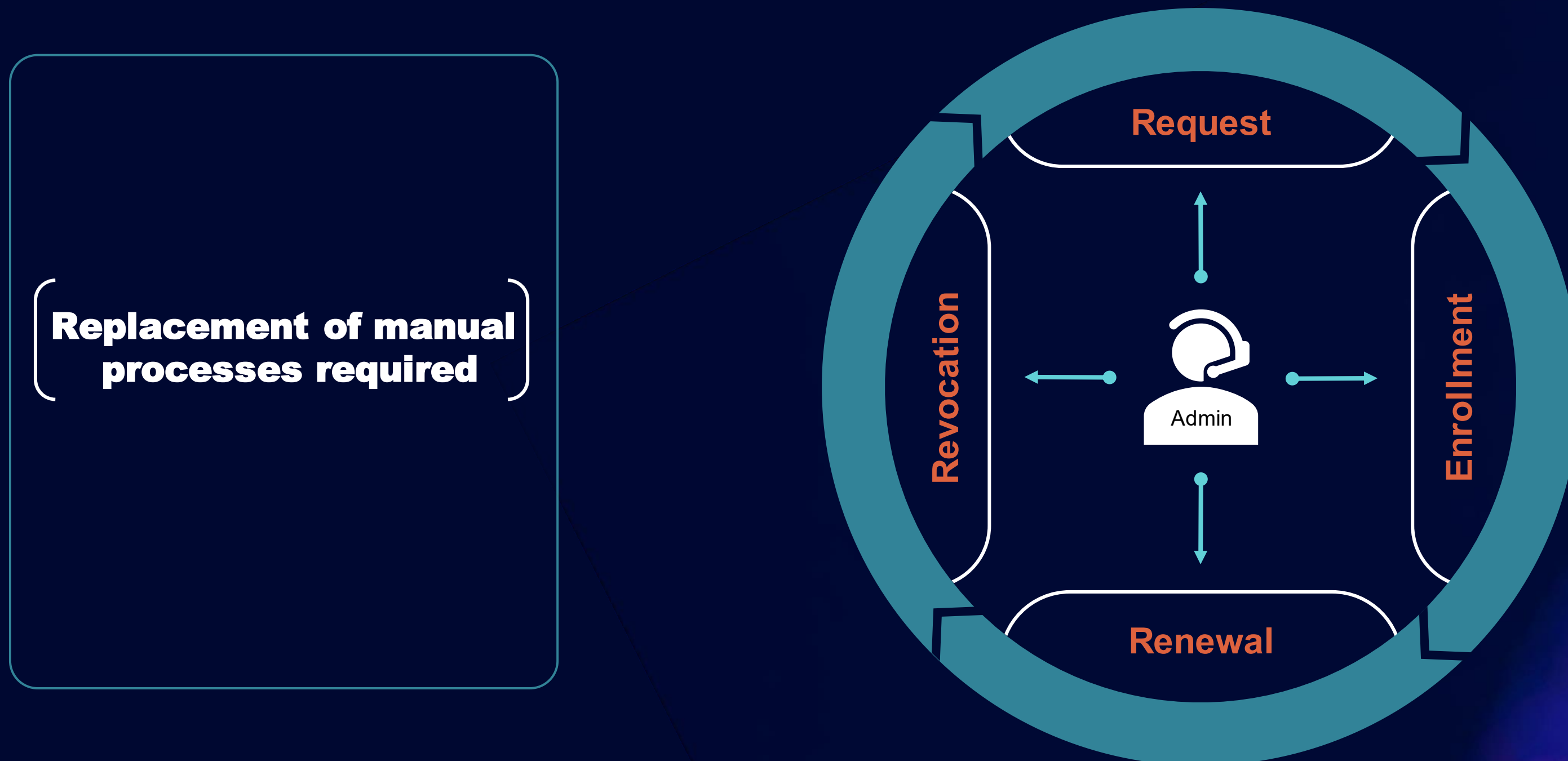
Security risks



Missing user acceptance

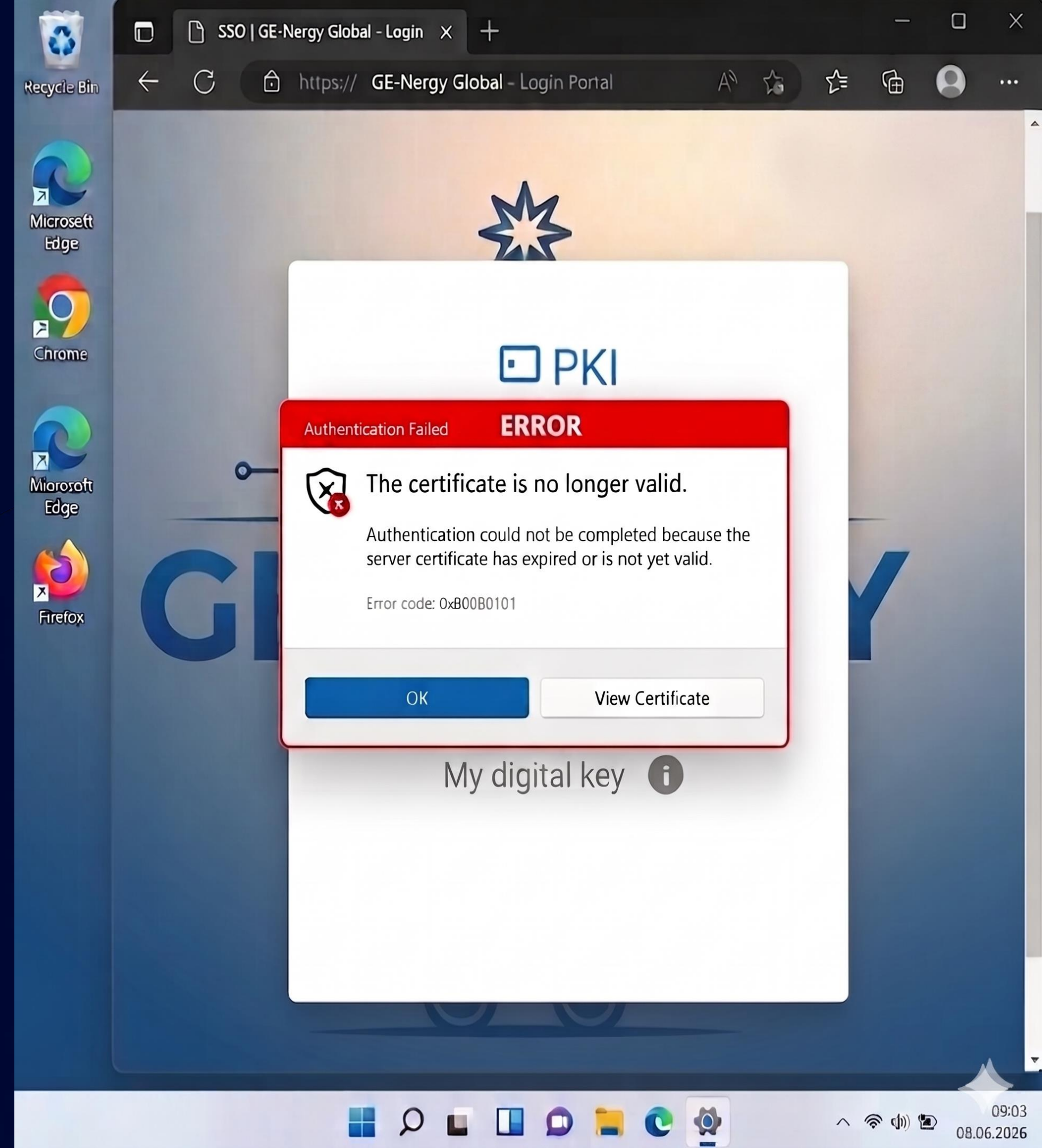
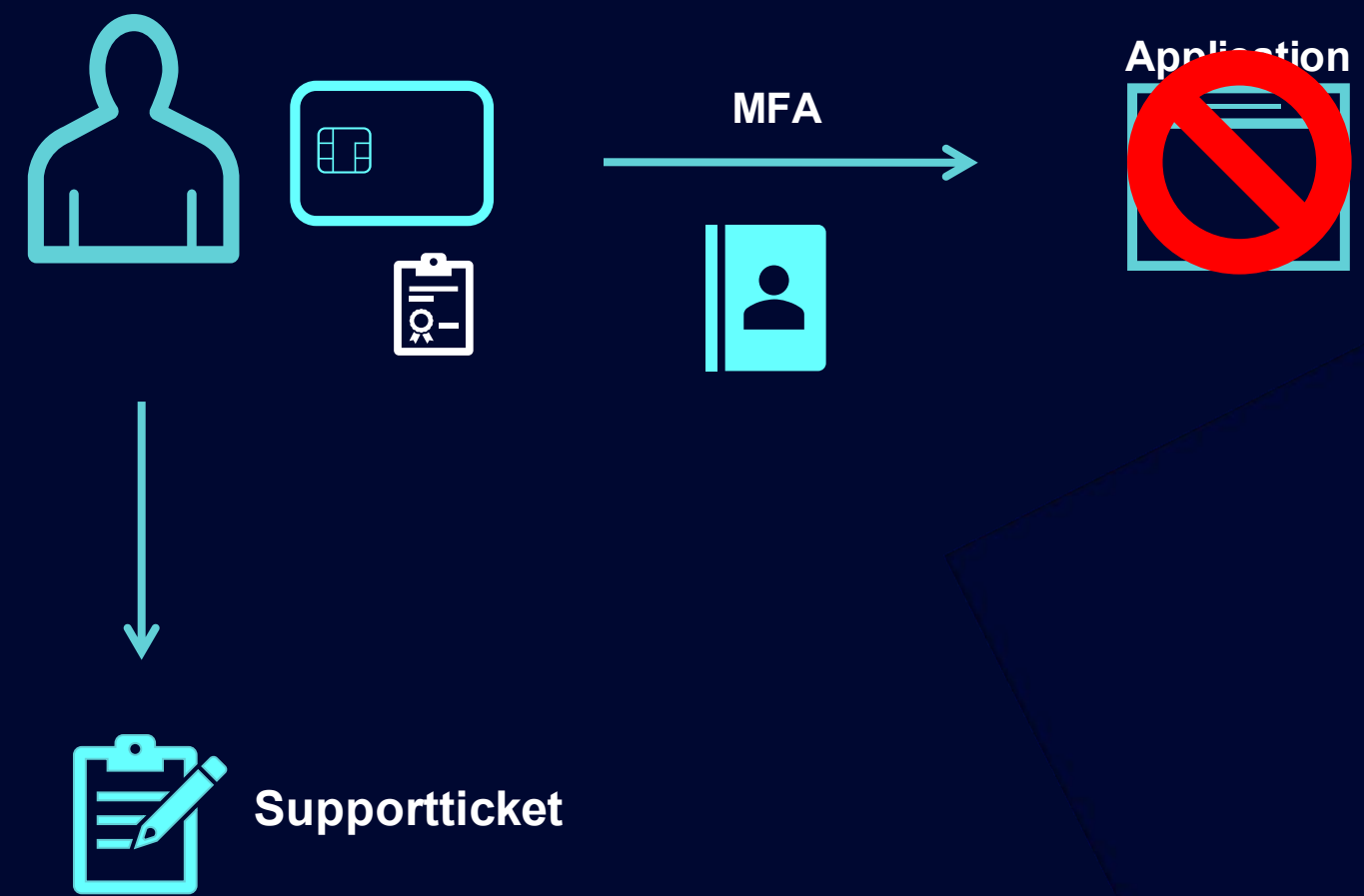


Why PKI administration was complicated

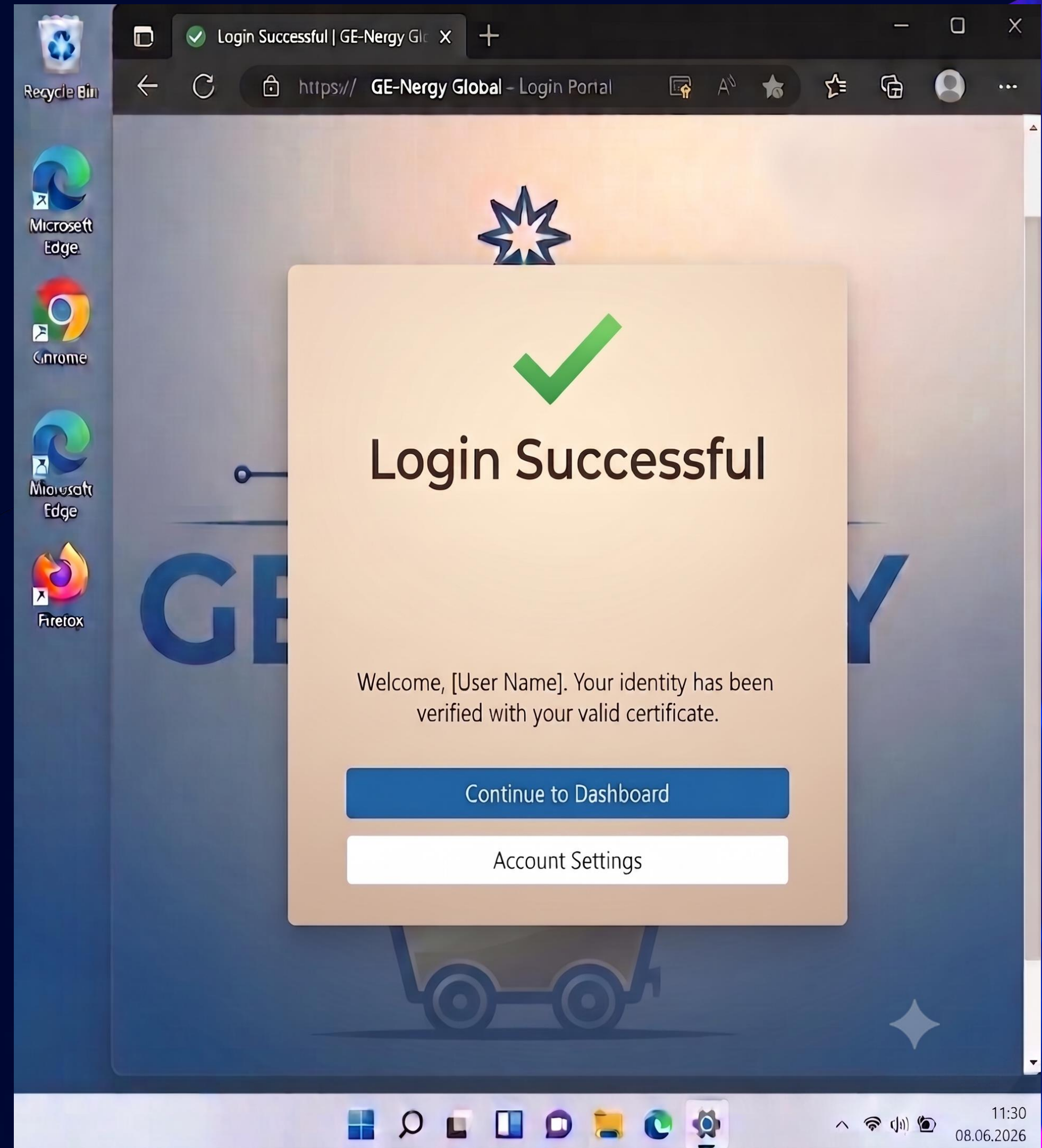
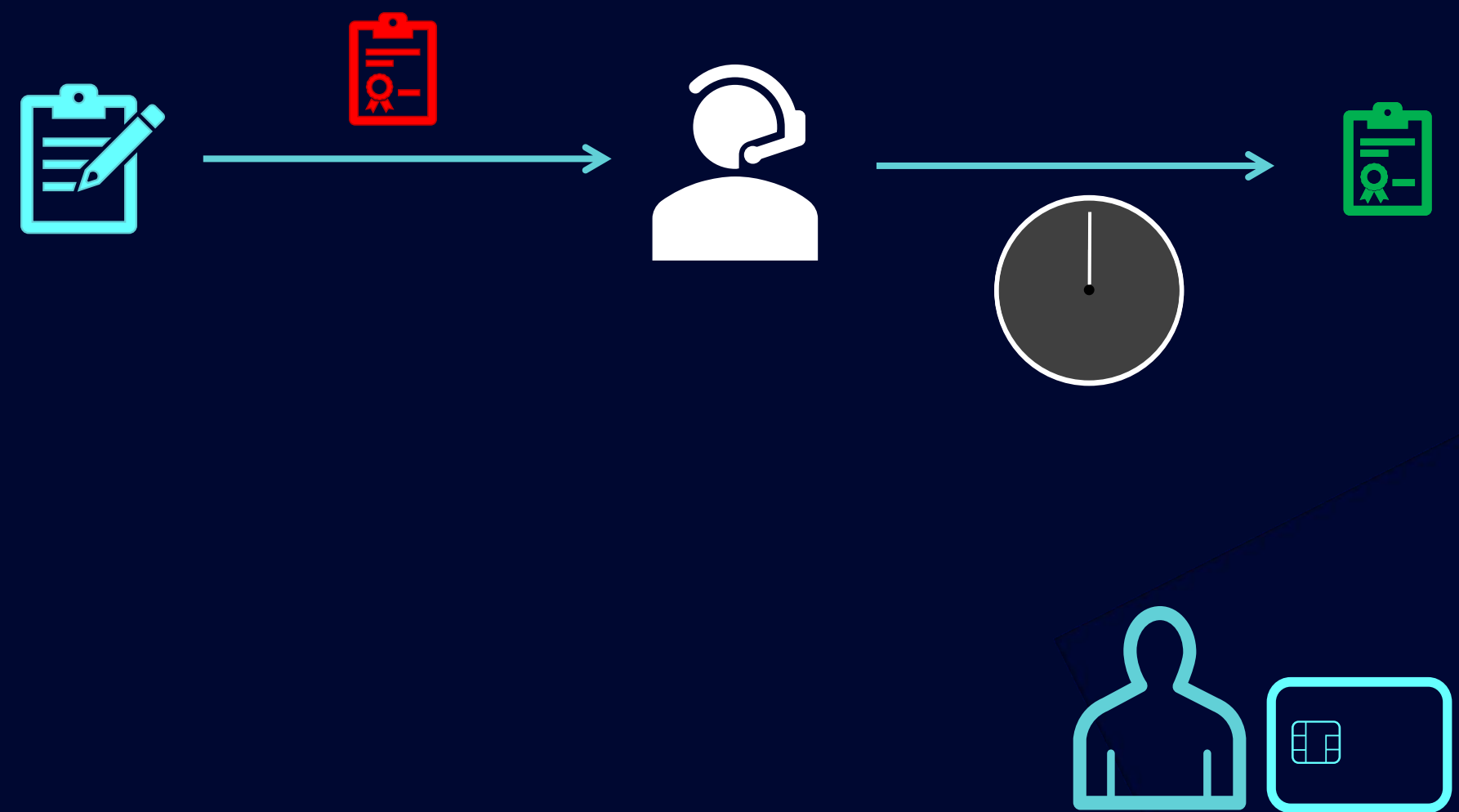


**What happens if a certificate
expires at 8:00 a.m. on a
Monday?**

Use Case: invalid certificate



Use Case: invalid certificate



Certificate expired	New Hire	Compliance demands	Hardware exchange
Hardware Lost	Mass Revocation	Hardware damaged	Compliance incidents
Human Failure	Reissuance	Regular certificate renewal	Certificate exchange by Certificate Authority
Fluctuation	CA incidents	Organization renaming	Migration to new systems

The Challenge:

Complex processes

- significant Security Risks

Expensive

- Production downtime = operating costs
- Expenses for cards, readers & tokens

Dissatisfaction

- High operational burden (Helpdesk & end users)

Incompliant

- Group Security requirements are not met



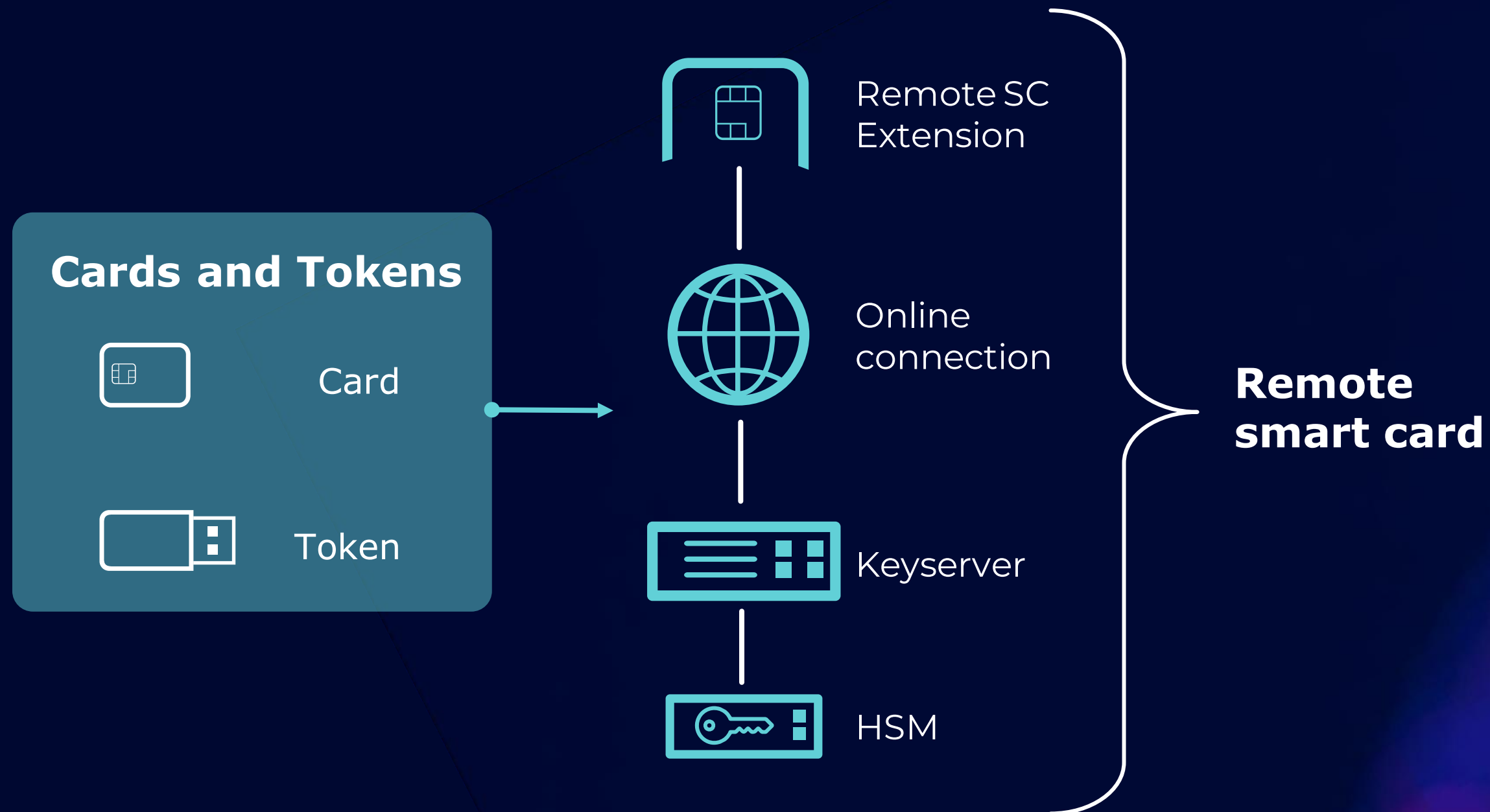
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**Enable Hardware-free solutions as a
hybrid alternative to smart cards and
USB Tokens**

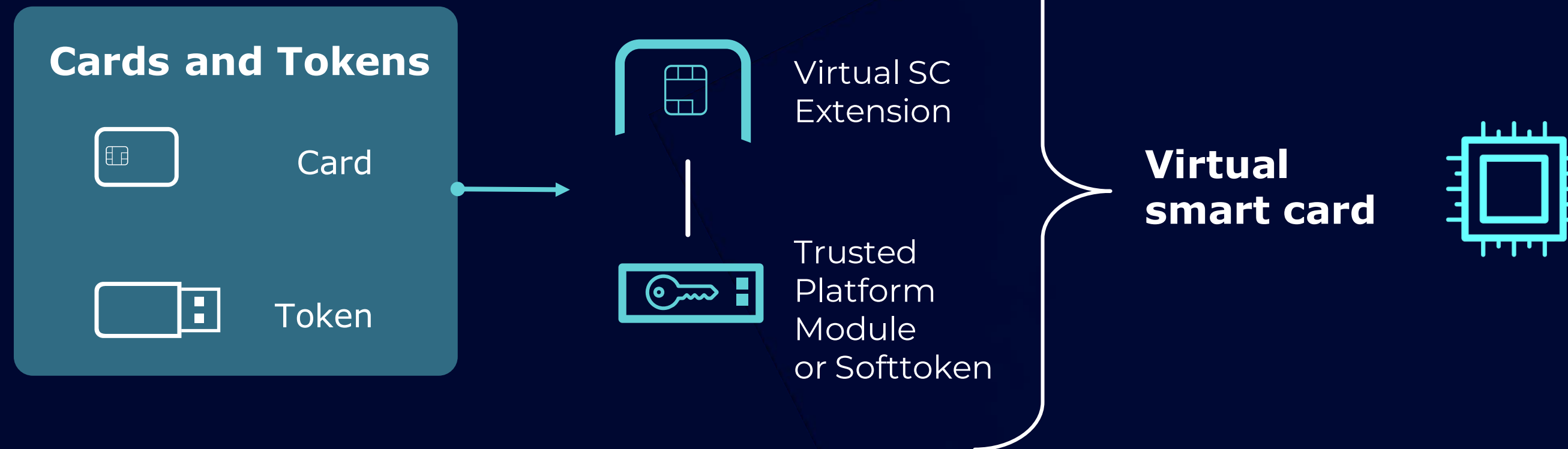
Smart card replacement (1)

Field users with changing working areas



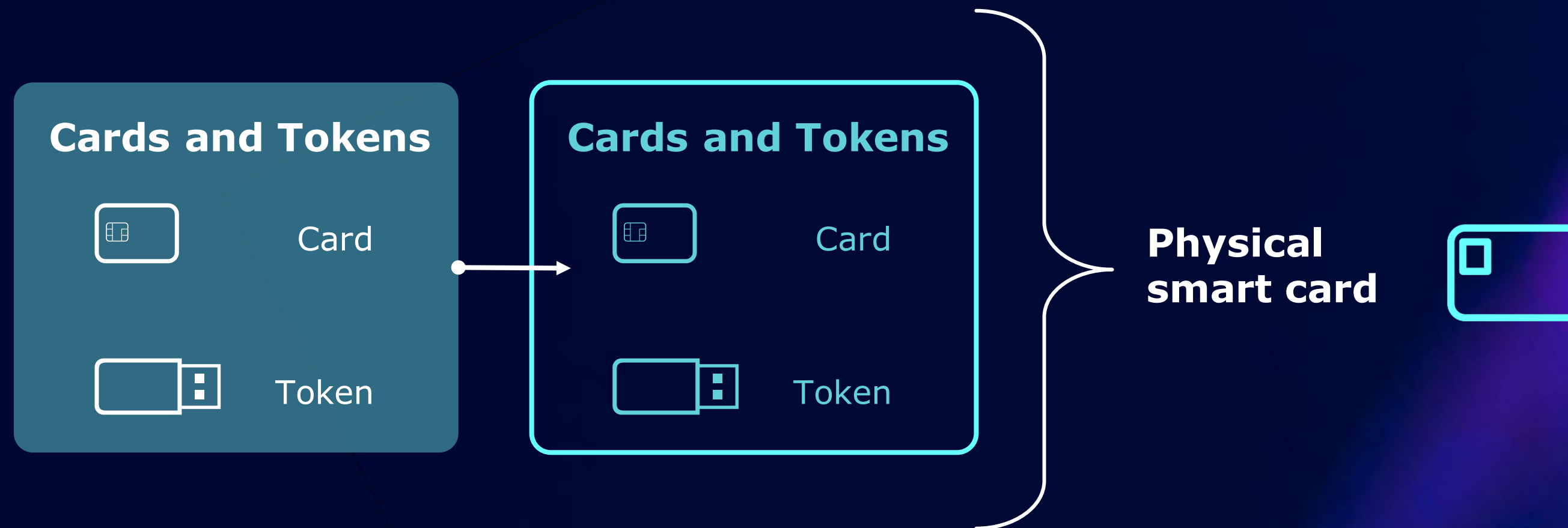
Smart card replacement (2)

Office users



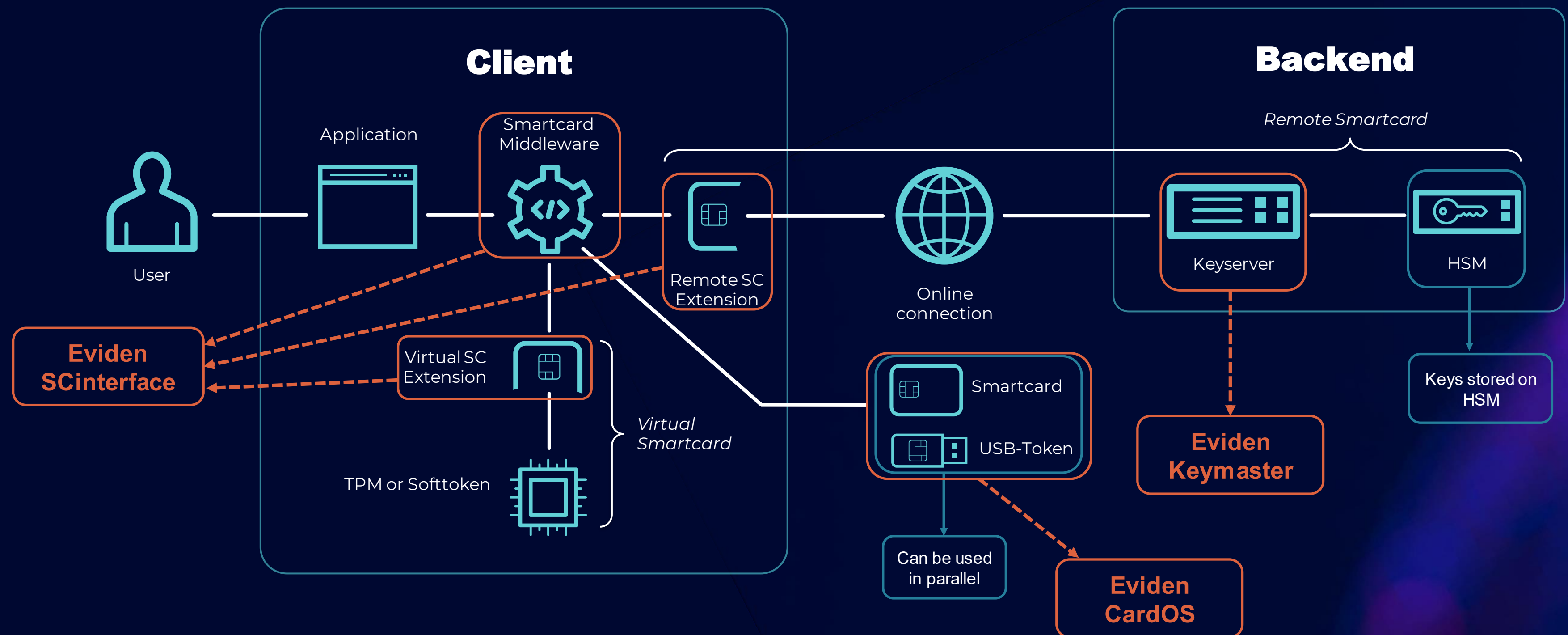
Smart card “replacement” (3)

Users in regulated areas



Modern Authentication Approach

Overview



Modern Authentication Approach

Smartphones as Smart Cards

The Next Generation of Secure Authentication



Meet the Experts

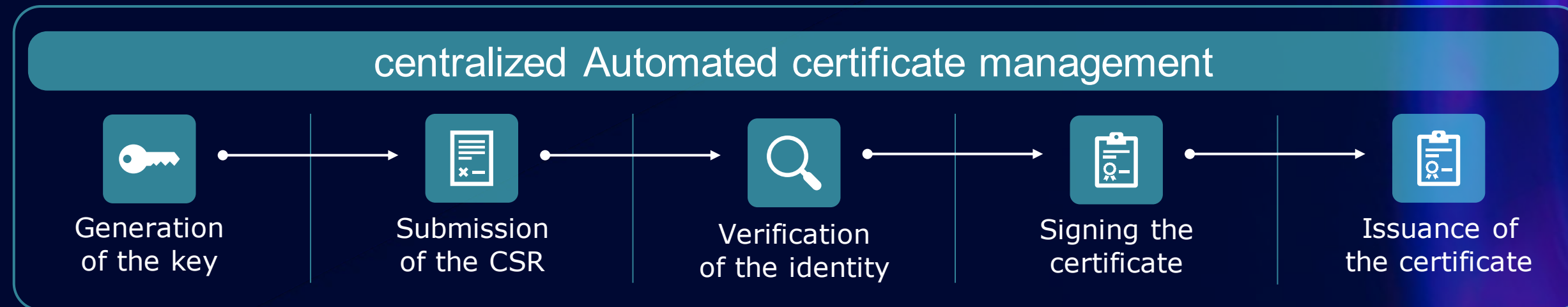
 **Eviden Demo Stations**

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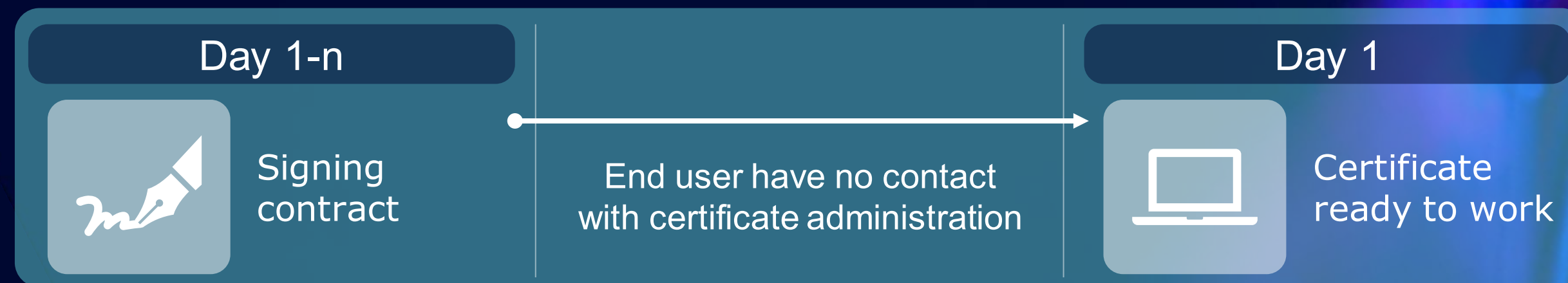
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Automated certificate Management overview

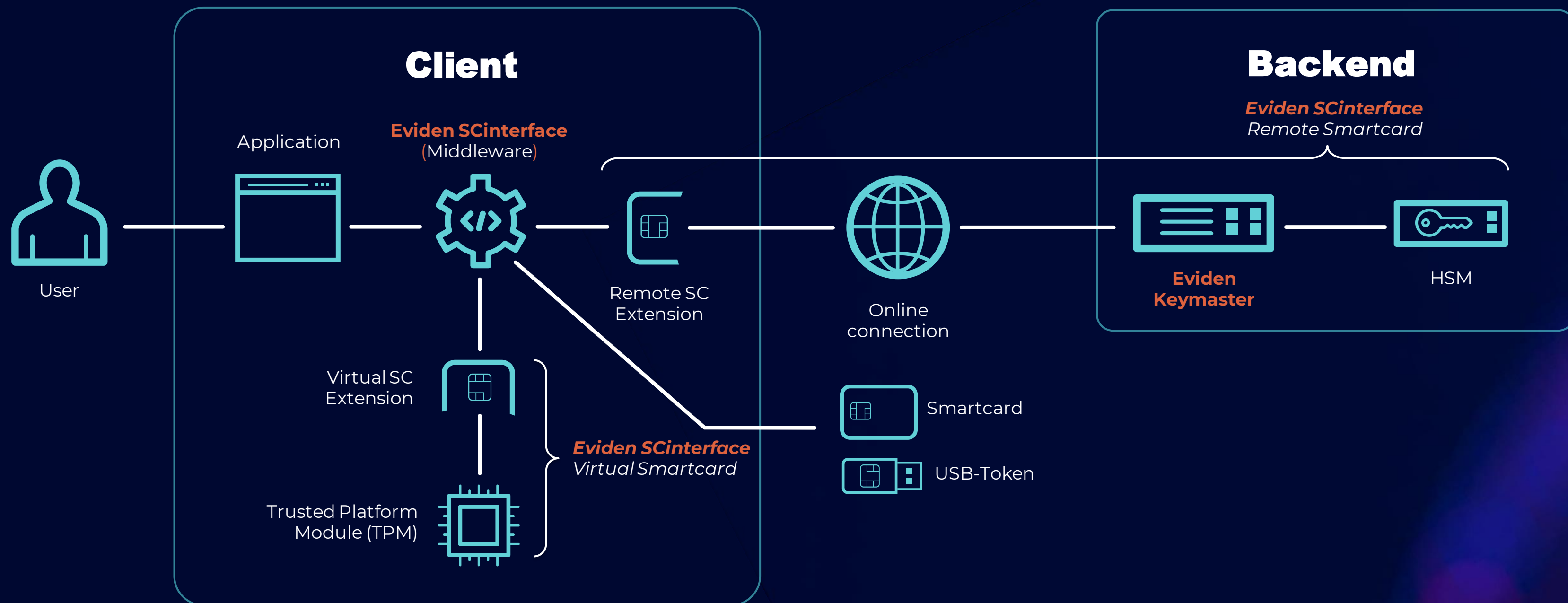
Automated PKI processes



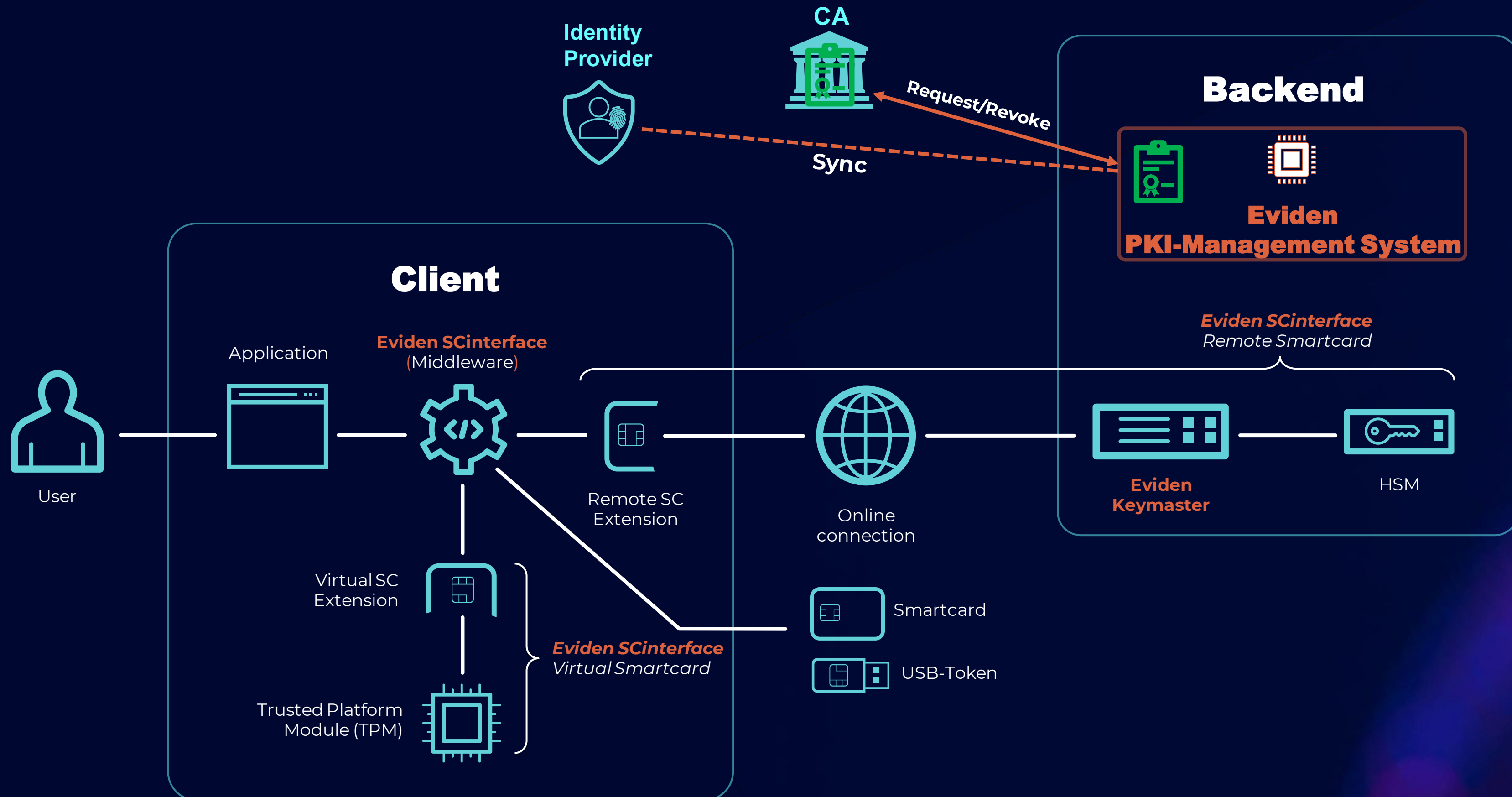
End user experience



Automated certificate Management overview



Automated certificate Management overview



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Added value through PKI Modernization

Easy to administer

Central administration,
no/less physical cards



Highly secure

End-to-end PKI security,
from certificates
to authentication

Future-proof security
hybrid IT environment



User-friendly

Users receive certificates
automatically and can
use them immediately



Fewer Support Tickets

Before modernization:
~25,000 tickets/year

Year 1:
Reduced to ~18,000 tickets/year

Year 2:
Reduced to ~8,000 tickets/year

Committed Target:
~5,000 tickets/year
(80% reduction)



Conclusion:

Improved Efficiency

- PKI and cert. management run smooth in the background
- Employee's work is not interrupted

Economical

- Reduced operating costs
- Less expenses for Hardware

Flexible & Future Proof

- Virtual Smart Cards
- physical cards/tokens
- simple & central certificate management



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CYBERSECURITY LEADERSHIP FORUM

Thank you!

Lennart Prekel, Eviden Digital Identity

Meet the Experts

📍 Eviden Demo Stations

15:45 – 16:15

17:15 – 17:45

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