

WebPKI Is Breaking its Limits

10X

10X Scale Is Now Mandatory

CA/Browser Forum policy changes are shrinking certificate lifetimes and exploding operational demands.

TLS certificate validity by 2029

Domain & IP validation by 2029

398 Days

47 Days

10 Days

398 Days

8X more certificates required

40X more domain validations required

Why Traditional PKI Fails at 10X Scale



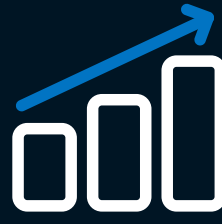
Manual renewals increase outage risk



Single-region validation increases DNS attack exposure



Legacy crypto is not quantum-safe



Static infrastructure cannot handle exponential growth

PKI must become automated, distributed, and intelligence-driven.

How DigiCert Is Engineering WebPKI for 10X Scale

Massively Scaled Infrastructure

- High-performance signing clusters
- Global HSM networks
- Elastic compute and storage
- 99.99% SLA

Global Resilience

- Multi-availability zones
- WebTrust-compliant data centers
- No single point of failure
- Continuous operations during upgrades

Always-On Trust Services

- Scaled Certificate Transparency logs
- Global OCSP and CRL delivery
- Multi-CDN architecture
- Sub-100ms global performance

Takeaway:

10X issuance requires infrastructure built for constant load, not peak exceptions.

Trust Must Scale Without Compromise

Multi-Perspective Issuance Corroboration (MPIC):

- Multiple geographic DNS checks
- Detects poisoned DNS caches
- Blocks regional MITM attacks
- Prevents inconsistent DNS responses

Post-Quantum Cryptography (PQC):

- PQC-ready HSMs
- Dedicated PQC private roots
- Support for all NIST-approved algorithms
- Hybrid and pure PQC certificates available today

Insight:

Scaling trust means validating from everywhere—and preparing for quantum now.

Automation Is the Only Way to Survive Short Lifecycles

AI-Driven Validation:

- Faster OV and EV issuance
- Automated document parsing
- AI-based fraud and anomaly detection



Open-Source Domain Control Validation:

- Hardened DNS and HTTP validation
- Standardized, auditable logic
- Enterprise-scale automation support



Operational Proof Point:

- Industry-Leading Net Promoter Score (80+)

80+

What This Means for Enterprises

Outcomes:



No manual renewals



Fewer outages



Continuous compliance



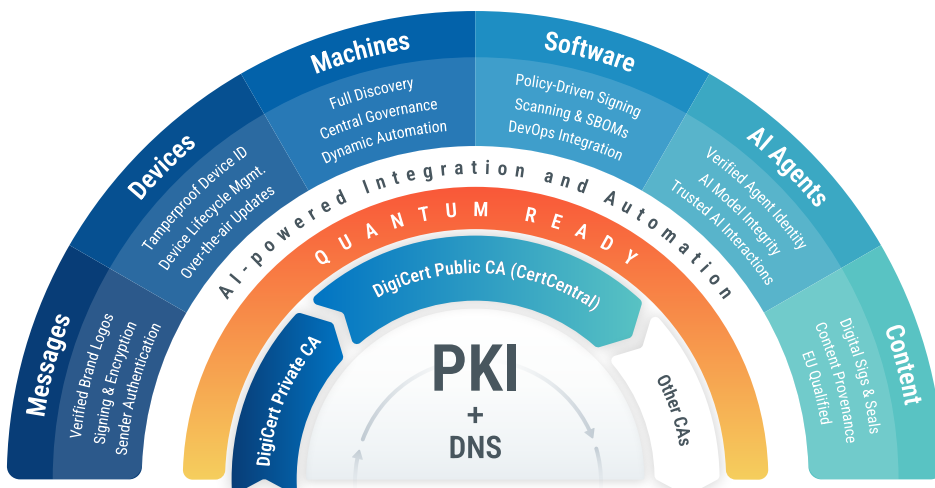
Quantum-safe readiness



Unified PKI and DNS operations

digicert® ONE

- ✓ ACME-enabled by default
- ✓ Automates discovery, issuance, renewal, and revocation
- ✓ Scales across cloud, on-prem, hybrid, and air-gapped environments



DigiCert Isn't Adapting to the Future of WebPKI—It's Defining It

A 10X world demands automated, resilient, intelligent, and quantum-ready trust infrastructure.

Source: Upgrading WebPKI for 10X Scale – DigiCert White Paper