

PQC Transition Roadmap

PQC Phase	Key Activities	Goal	Technical Focus	essendi Support
Phase 1	Assess Readiness	Goal: Gain visibility and assess the current state		
	Establish Crypto Inventory	Transparency across cryptographic assets	Discovery, classification, asset ownership	essendi cd, essendi xc
	Assess Algorithm Usage	Evaluate exposure to quantum threat	Digital signature, key establishment schemes	essendi xc
	Identify Critical Communication Paths	Determine migration priorities	Network security protocols, service dependencies	essendi xc
	Define Prioritization Criteria	Structured transition planning	Risk-based migration phases	essendi consulting
Phase 2	Prepare the Architecture	Goal: Establish the technical foundation		
	Enable Multi-CA Capability	Allow phased migration and testing	PKI architecture, trust chains	essendi xc
	Implement Multi-Algorithm Support	Introduce hybrid deployments	Hybrid certificates, crypto agility	essendi xc
	Automate Certificate Lifecycle	Reduce operational risk	Certificate lifecycle management	essendi xc (CLM)
	Deploy Discovery and Monitoring	Avoid migration blind spots	Continuous crypto inventory	essendi cd
Phase 3	Plan Transition	Goal: Create a structured and manageable migration path		
	Prepare Batch Migration Capabilities	Enable staged rollout	Bulk operations, key rotation	essendi xc
	Run PQC Pilot Environments	Gain operational experience	Pilot PKI, hybrid certificates	PQC consulting, essendi xc
	Validate Hybrid Architectures	Ensure interoperability	Hybrid signatures, algorithm negotiation	essendi xc, PQC consulting
	Define Transition Roadmap	Controlled rollout	Crypto agility strategy	essendi consulting
Phase 4	Enable PQC Operations	Goal: Integrate PQC into systems and operational processes		
	Integrate PQC into Infrastructure	Maintain compatibility	TLS, identity systems, cryptographic libraries	essendi xc
	Establish Governance Model	Coordinate transition activities	Cross-team alignment	essendi consulting
	Plan Budget and Resources	Support long-term migration	Infrastructure updates, automation	essendi consulting

This checklist is best treated as a living document. As standards evolve and implementations mature, additional steps can be added, particularly for hybrid deployments and algorithm updates.