SOFTWARE LIFECYCLE MANAGEMENT

REQUIREMENT MODELING
Requirement Lifecycle Management

- Cybersecurity requirements
- Data privacy requirements
- Regulatory, Quality, Security Standards
- NIST 800-53, SSDF/CIS Critical Security controls, HITRUST CSF, COBIT, ISO/IEC 27000 family, HIPAA, SOX, GDPR, CCPA, CLOUD Act
- Security considerations for cloud computing, ISACA

ARCHITECHTURE & DESIGN MODEL
Architechture & Design Management

- Secured Identity management
- MFA / JWT / Password-less authentication
- Permissions Management / RBAC / Secured Access Management
- Network diagram with secure communication
- PII data flow diagram
- Enterprise data model
- Identity & setup security tool chains
- Setup secure environments for implementation & testing

CONTINUOUS DEVELOPMENT CONTINUOUS INTEGRATION
Continuous Implementation Cycles

- SAST / DAST / MAST processes
- Secure development lifecycle processes
- PII data masking in log / audit / exception files
- System hardening processes
- Threat modelling
- Enterprise data model
- Measure metrics and feedback into CI / CD pipeline

VALIDATION & VERFICATION
Quality Assurance & Quality Control

- Penetration testing
- OWASP T10 / CWE / NIST / HITRUST / COBIT / ISO / IEC 27000 family security controls compliance testing

DEVSECOPS
Setup DevOps & SecOps Pipeline

- Data encryption at rest
- Field level encryption of PII data
- Data anonymization/ psuedonymization
- Synthetic data in non-prod environments via Generative AI
- System hardening/open source vulnerability scanning

CONTINUOUS DEPLOYMENT
Continuous Deployment Pipelines

- App deployment via MDM/MAM
- Managed app configuration in cloud
- Secure key management via key vault
- Containerised services and served via container registry to authenticated consumers
- Use build once deploy multiple strategy

MAINTENANCE & SUPPORT
Change & Service Management

- Secure incident process
- Setup security compliance testing triggers on patch/hot deployment cycles
- Secure change management
- Secure support process
- Secure release cycles
- Secure data migration strategy

PERFORMANCE & RELIABILITY ENGINEERING
Infra Maintenence & Uptime

- Apply node security
- Setup security score dashboard
- Enable end-point security
- Continuously monitor security health index
- Monitor firewall breaches/unauth access attempts
- Secure key management via key vault

Check out our eight-part whitepaper series on managing cybersecurity and data protection footprint of the Software Lifecycle Management (SLM).

ACL Digital is a design-led Digital Experience, Product Innovation, Engineering and Enterprise IT offerings leader. From strategy, to design, implementation and management we help accelerate innovation and transform businesses. ACL Digital is a part of ALTEN group, a leader in technology consulting and engineering services.

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