



Continuous Application Lifecycle Management (cALM)

“AI-Powered Lifecycle Management for GxP-Validated Software”



INTRODUCTION

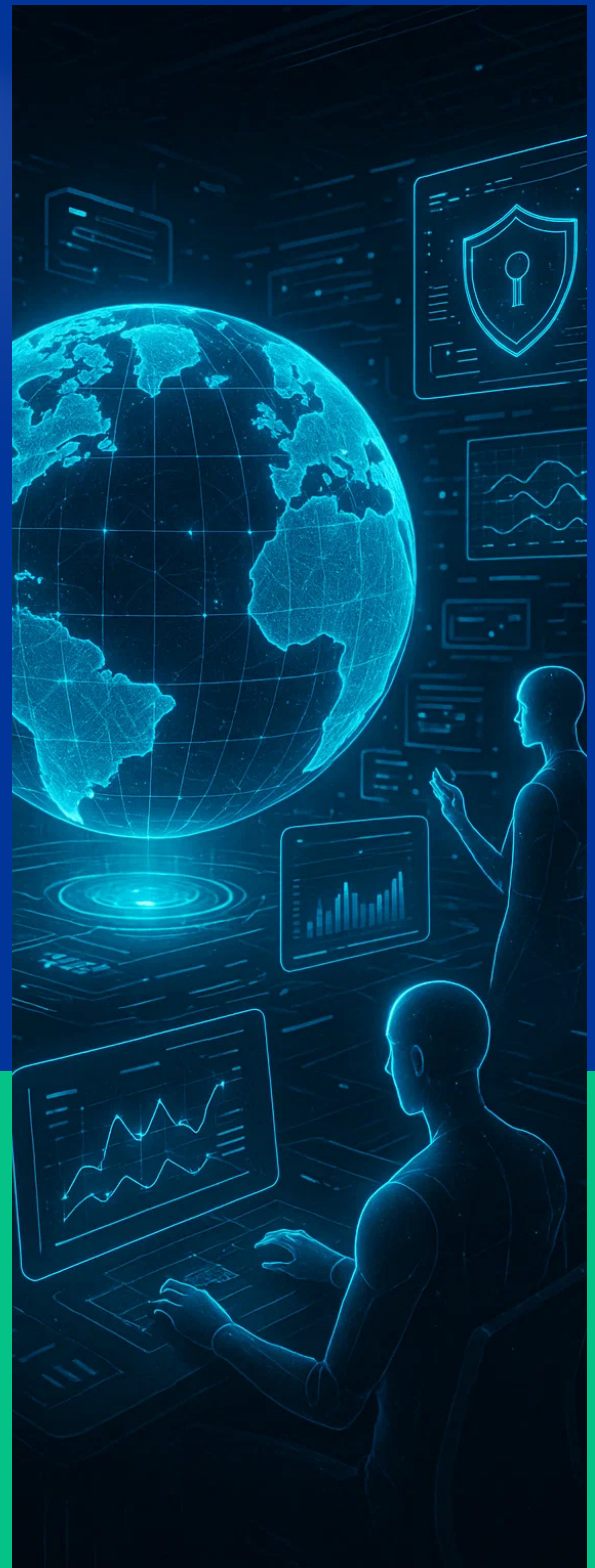
cALM (Continuous Application Lifecycle Management) by xLM answers this challenge with an AI-powered, compliance-aware ALM platform designed for regulated environments. cALM isn't just Application Lifecycle Management it's intelligent, compliant, and future-ready software governance.

For regulated organizations, cALM solves the tension between innovation and inspection, uniting developers and compliance teams on one trusted platform.

Whether validating a simple app or managing global FDA-regulated releases, cALM unifies validated delivery with traceability, automation, and audit-ready documentation across every phase.

Cloud or on-premises, cALM empowers Agile and DevOps teams to:

- Build software faster
- Automate validation
- Control changes
- Prove compliance



VISION FOR cALM



xLM's vision with cALM is to transform traditional ALM into an intelligent, integrated, and compliant digital workspace. Built for regulated industries, cALM merges the flexibility of Agile/DevOps with the rigor of FDA 21 CFR Part 11, GAMP 5, and Annex 11 compliance so teams no longer need to choose between speed and compliance.

Key shifts cALM promotes:

- From isolated tools → To integrated pipelines
- From manual testing → To AI-driven test execution
- From static compliance logs → To real-time traceability
- From post-release audits → To continuous validation



OUR PROCESS

► Unified Workspace

Developers, testers, and compliance officers work in a shared environment.

► AI-Powered Validation

Auto-generated validation protocols with e-signatures and GxP audit readiness.

► End-to-End Traceability

URS ↔ Test Cases ↔ Defects ↔ Releases in a bi-directional matrix.

► Secure, Scalable Infrastructure

Deployed on cloud on-premises with role-based access and enterprise-grade encryption.

► Real-Time Change Management

Automated logs of every code commit, test case, and system change.

► Integrated CI/CD Pipelines

Seamless connectivity with Git, Jenkins, Bitbucket, and other DevOps tools.

► Automated Documentation

Validation documents and compliance reports generated on demand.

INTELLIGENT FEATURES

► AI-Driven Validation and Automated Documentation

Auto-generated test cases, executes them, and captures results with traceability. Creates dynamic, audit-ready reports.

► Smart Change Management & Integrated CI/CD

Tracks changes in real time with version control (Git, Bitbucket). Syncs with pipelines for compliant delivery and rollback.

► End-to-End Traceability

Bi-directional linking of requirements, risks, test cases, defects, and releases.

► Agile/DevOps Friendly

Supports sprints, kanban boards, iterative development, and continuous delivery.

► Collaborative Work Management & Scalable Deployment Options

Connects compliance, testing, and development teams with dashboards and workflows. Supports cloud, on-premises, and hybrid environments.



VALUE MATRIX

Aspect	Traditional ALM	cALM by xLM	Impact
Validation Management	Manual protocol creation and review	AI-driven validation with full traceability	80–90% time savings
Traceability	Fragmented across tools	Real-time bi-directional trace matrix	Zero traceability gaps
Change Control	Retrospective documentation	Live change logs, versioning, Git integration	Reduces rework and risk
Test Management	Manual or soiled execution	Automated execution + AI-predicted defects	Fewer bugs, faster releases
Compliance Reporting	Generated post-release	Auto-generated in real-time	Audit readiness by default
Deployment Integration	Requires handoffs and scripts	Fully integrated with CI/CD pipelines	Faster, safer go-lives
Audit Prep Time	Weeks of manual effort	Built-in audit logs and reports	Days saved on every inspection

ABOUT US

xLM is a trusted managed application provider enabling FDA-regulated organizations to modernize compliance, quality, and IT operations.

With decades of domain expertise and a technology-first mindset, xLM helps companies scale digital transformation without compromising on validation, traceability, or audit-readiness.

Our Other Applications

➤ Continuous Intelligent Validation (cIV)

➤ Continuous Predictive Maintenance (cPdM)

➤ Continuous Environmental Monitoring System (cEMS)

➤ Continuous Temperature Mapping (cTM)



Our stack incorporates intelligent and responsible AI into all our managed services. From Predictive Analytics to Software Validation, our apps are pre-built with best practices so that they can be deployed within days or hours.



Intelligent Application Provider

All our apps are delivered as managed apps. We do the heavy lifting so that you can focus on building your business



Intelligent and Responsible AI

Through our partnership with IBM, all our AI centric apps are delivered with cLCG (Continuous Life Cycle Governance)



White Glove Service

Our team does more than 95% of the heavy lifting. All we need from you are approvals



Extensive App Portfolio

xLM leverages its robust partner ecosystem to deliver over 15 managed apps and it is growing



Delivered Validated

All our managed apps are delivered “validated”



21 CFR Part 11/Annex 11/FDA CSA Compliant

Ensures all our managed services are compliant out of the box



High Data Integrity Assurance

Our services guarantee accurate, reliable and resilient data across all our managed apps.

[Get Started](#)

