AXIS Platform Blueprint

AXIS (Academic eXchange & Integrated Systems) is a proposed statewide education platform for Oklahoma. It replaces hundreds of disconnected district tools with a single, secure, modern system that supports teaching, learning, reporting, and transparency across every district.

This document outlines the core components AXIS must include, how it connects to existing systems, and how transparency is baked into the platform from day one—not added later as an afterthought.

1. Core Objectives of AXIS

AXIS is not just another student information system. It is a statewide operating platform designed to:

- Unify fragmented K–12 technology into a single, resilient platform that every district can use.
- Provide one secure login for students, parents, educators, and administrators across Oklahoma.
- Reduce clerical and reporting burdens on teachers and staff so they can focus on instruction.
- Deliver accurate, real-time data for school leaders, SDE, OMES, and policymakers.
- Enable individualized support through online tutors and statewide virtual teachers.
- Automate compliance and reporting so federal and state obligations do not pull time away from classrooms.
- Embed transparency into the platform's design so the public can see how schools and systems are performing.

2. Core Functional Areas

At minimum, AXIS must support the following functional areas statewide. These are not optional modules; they form the baseline of what every Oklahoma district can rely on.

- Student Information & Enrollment – demographics, enrollment, transfers, scheduling, and records.
- Attendance & Engagement – daily attendance, tardies, chronic absentee tracking, and intervention flags.
- Grades & Assessment – assignments, grading workflows, progress reports, transcripts, and state assessment imports.
- Communication – secure messaging between schools and families, notifications, and announcements.
- Behavior & Support – discipline events, tiered interventions, IEP/504 support links, and case notes.
- Staff Tools – teacher gradebooks, seating charts, class rosters, task automation, and workflow approvals.
- Compliance & Reporting – ESSA, IDEA, CRDC, NCES, Title I–IV, and state-required reporting logic.
- Analytics & Early Warning – dashboards and predictive indicators for attendance, performance, and risk.
- Online Instruction – integration points for online certified tutors and statewide virtual teachers.

3. System Architecture & Connections

AXIS should be designed as a modular, API-driven platform that can connect to existing systems as needed while ultimately replacing fragile legacy tools. Key architectural principles:

- Single statewide data model managed jointly by SDE and OMES, with clear versioning and documentation.
- API-first design: every major function (enrollment, grades, attendance, communication) exposed via secure APIs.
- Event-driven integrations so that changes in AXIS (e.g., enrollment updates) automatically sync to downstream systems.
- Central identity and access management using modern standards (e.g., SAML/OIDC) for one login across all districts.
- Role-based access controls (RBAC) that define exactly what each class of user can see and do.
- Logging and audit trails at the platform layer so every change is traceable.

AXIS must also provide a clean migration path from existing district systems. This includes:

- Standardized import formats and tools for bringing historical data into AXIS.
- Side-by-side pilot operation where selected districts run AXIS in parallel with legacy systems before full cutover.
- Data validation tools that highlight mismatches or gaps during migration.
- Clear decommissioning plans so legacy contracts and hosting can be shut down in an orderly way.

4. User Roles & Access Patterns

To keep the platform safe and usable, AXIS must define clear user roles with appropriate permissions:

- Students – view schedules, assignments, grades, progress, and communication from teachers.
- Parents/Guardians – view attendance, grades, messages, behavior notes (within policy), and school announcements.
- Teachers – manage gradebooks, attendance, assignments, communication, and classroom-level analytics.
- Counselors & Support Staff – access multi-student views, interventions, and support documentation.
- Principals & District Leaders – dashboards, trends, staffing views, and aggregated reports for their schools.
- Statewide Online Tutors & Teachers – access to assigned students, virtual class rosters, and online tools.
- SDE & OMES – read access to statewide analytics, compliance outputs, and system health for oversight and planning.

5. Transparency by Design

Transparency is not a bolt-on feature for AXIS; it is a design requirement. The platform should make it easy for the public, policymakers, and stakeholders to see what is happening in Oklahoma schools without creating extra work for teachers or administrators.

- Public-facing dashboards that show statewide and district-level metrics such as enrollment, attendance, graduation trends, and program participation—without exposing individual student identities.
- Standardized reporting definitions so that when the public sees a metric, they know how it was calculated.
- Real-time or near real-time updates rather than waiting months for static PDFs.
- Automatic generation of required state and federal reports from the same data used to run schools every day.
- Immutable audit logs that track who changed what, and when, to support investigations and internal reviews.
- APIs that allow OMES and SDE to build additional transparency tools (or integrate Civico.Cloud-style views) without reinventing core logic each time.

Civico.Cloud already demonstrates what a statewide civic transparency layer can look like. AXIS should be built with the assumption that similar public views will sit on top of it—meaning data quality, consistency, and security must all be treated as non-negotiable requirements from day one.

6. Implementation & Governance

Because OMES and SDE already have authority over statewide systems and reporting standards, AXIS can be implemented as an executive-led modernization effort rather than waiting on new legislation.

- Joint governance board with representation from OMES, SDE, district leaders, and classroom educators.
- Clear product roadmap that is updated quarterly and communicated publicly.
- Pilot districts selected to represent rural, suburban, and urban contexts, with published lessons learned.
- Formal feedback channels for teachers and staff to report issues, request improvements, and shape future releases.
- Security and privacy oversight embedded in governance from the beginning, not added afterward.

7. Benefits Summary

When fully implemented, AXIS will:

- Reduce technology fragmentation and duplicated effort across Oklahoma's 500+ districts.
- Lower long-term IT and licensing costs by retiring redundant systems and contracts.
- Give teachers back time currently lost to clerical work and manual reporting.
- Provide families with a consistent, predictable experience no matter where they live in the state.
- Equip school and state leaders with clear, real-time information for better decisions.
- Make transparency and accountability a natural outcome of how the platform works, not a separate project.

AXIS is ultimately about giving Oklahoma a modern foundation for education: one platform, one data model, and one clear, honest view of how our schools are doing—built to support the people who actually work in them.