

Modernizing SIS–LMS Integration for a Large K–12 School District



The Client

The client is a large public K–12 school district serving over 19,000 students and educators.

The Challenge

The clients Student Information System relied on outdated batch syncs with its LMS, causing delays in user updates, grade reporting, and limited insights into student engagement. Minimal LMS data flowed back to the SIS, and restricted role definitions limiting flexibility for administrators. With a growing user base, the district needed a scalable, real-time integration strategy.

Critical Success Parameters

- ✓ Shift from batch-based to real-time or hourly sync of user, grade, and enrollment data.
- ✓ Expand data capture from the LMS - assignments, deadlines, time on task, and engagement.
- ✓ Enhance SIS dashboards for better usability and instructional decision-making.
- ✓ Support advanced role mapping for administrators, designers, and instructors.
- ✓ Ensure compatibility with OneRoster and LTI standards for interoperability.
- ✓ Build a scalable architecture to support future growth beyond 25,000 users.

Our Approach

- ✓ Led a 3-week discovery engagement with district stakeholders and IT teams.
- ✓ Audited data flow for 8,500 active users, covering courses, grades, and attendance.
- ✓ Mapped existing sync processes and documented future-state workflows.
- ✓ Defined technical and functional requirements for integration improvements.
- ✓ Proposed two modernization pathways:
 - Option A: Middleware layer for real-time sync and BI dashboards.
 - Option B: Transition to MagicBox™ with event-based triggers and granular user data.
- ✓ Explored sync models using webhooks and event-based triggers for real-time updates.
- ✓ Developed a phased rollout and funding alignment roadmap for implementation.



Key Result Highlights

Defined a clear modernization path for real-time SIS–LMS integration.

Reduced risk of data lag, improving instructional and compliance decisions.

Created a scalable platform architecture to support future district growth.

Strengthened administrative workflows through role enhancement planning.

Positioned the district for long-term engagement, integration flexibility, and sustained support.