



LEVERAGING CLOUD AND AI FOR DIGITAL TRANSFORMATION IN K-12 SCHOOL DISTRICTS

Abstract

School districts from kindergarten to grade 12 (K-12) manage sensitive personal data as well as financial transactions for their students, teachers, and staff members. Considering the changing regulatory requirements around compliance and data security, digital transformation is imperative. Moreover, such change is needed to improve financial efficiency and administrative productivity.

This paper discusses the key business roles within school districts and the need for business process automation. It also examines how solutions like enterprise resource planning (ERP) software-as-a-service (SaaS) cloud strategies and agentic artificial intelligence (AI) can help improve productivity, collaboration, efficiency, and compliance across business, human resources (HR), financial, and procurement management functions.

Introduction

In the American education system, school districts refer to administrative units or local agencies that manage and provide educational services from elementary through high school, or kindergarten to grade 12 (K-12). These school districts often have complex business processes for finance, accounting, human resources (HR), payroll, program management, procurement, and logistics. There is also close collaboration across various departments.

School districts often struggle to manage day-to-day operations because significant time is spent on managing critical activities for schools. Modern technological solutions such as enterprise resource planning (ERP) software-as-a-service (SaaS) cloud strategies and agentic artificial intelligence (AI) can help school districts streamline operations through a single platform. Real-time integration across all the functions and departments of the school district can also aid hierarchical collaboration between departments while embedded AI can improve data-driven decision-making.

Structure of School Districts

School district boards are legislative bodies responsible for establishing policies and frameworks for various services provided across school academies, management, operations, and financials. Figure 1 shows the organizational structure of school districts as well as the various hierarchies and the responsibilities of different roles. The superintendents of elementary and secondary schools are responsible for financial decisions and accountability. They collaborate with assistant superintendents, academic officers, and financial officers.

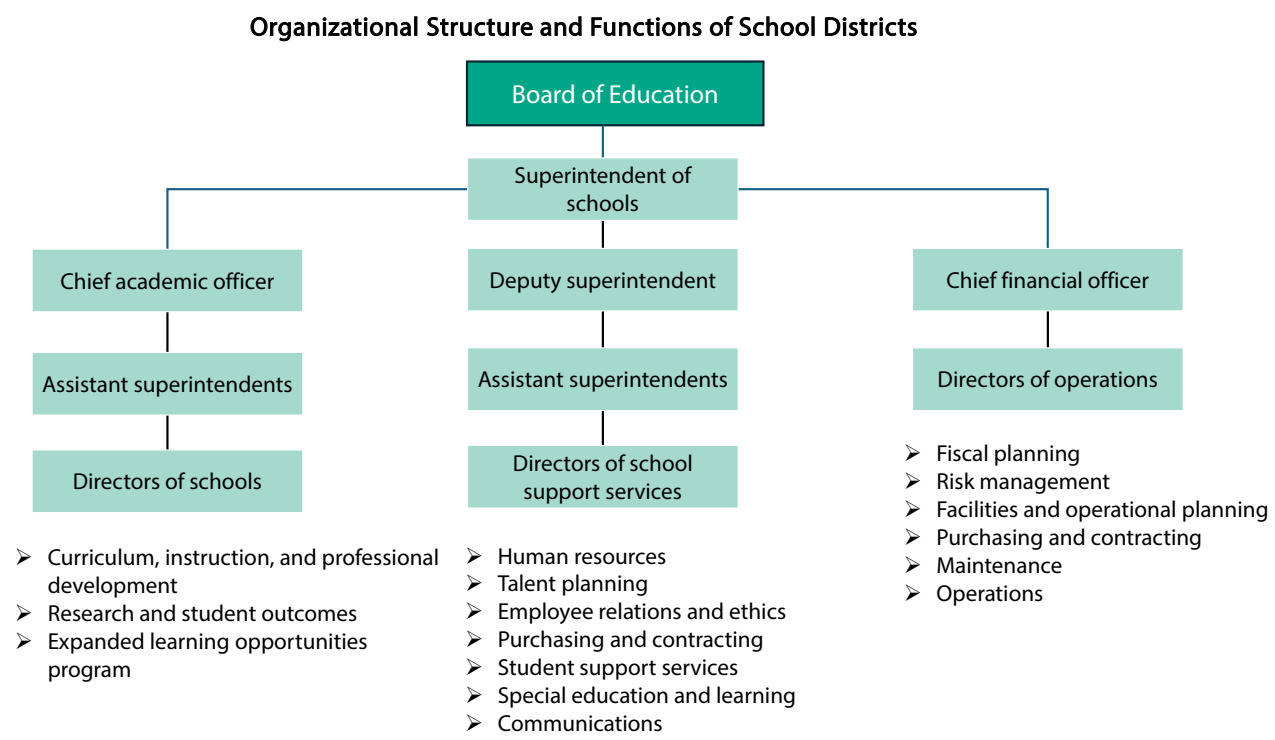


Fig. 1: Organizational structure and functions of school districts



Financial Functions Within a School District

School districts handle key tasks that require financial support. For instance, there are staff payrolls, budgeted expenditures, and grants to consider. Each of these is further explained below:

1. Certified and classified positions

School districts employ several categories of staff and are responsible for timely payroll management. Payrolls are defined based on the number of work hours clocked for different positions. These include:

Certified employees such as teachers, counselors, librarians, process coordinators, principals, and assistant principals

Classified employees or non-teaching staff such as secretaries, clerks, paraprofessionals, custodians, bus drivers, food service employees, maintenance workers, nurses, computer technicians, and programmers, to name a few.

2. School budgets

School budgets are a channel for school districts and senior management to collect funds, allocate resources, and justify spending on various programs. Some of the main budget types are:



Annual school budgets

These cater to program-specific needs such as science, technology, engineering, and mathematics (STEM) teacher salaries, teacher stipends, and support staff salaries, among others. Each department is responsible for planning the allocation of salaries for their staff. Projected enrollments are used to calculate the allocations. Principals can allocate non-salary and discretionary budgets based on the school district needs. Associate superintendents are responsible for reviewing the school building budgets and priority hiring lists.



Departmental annual budgeting

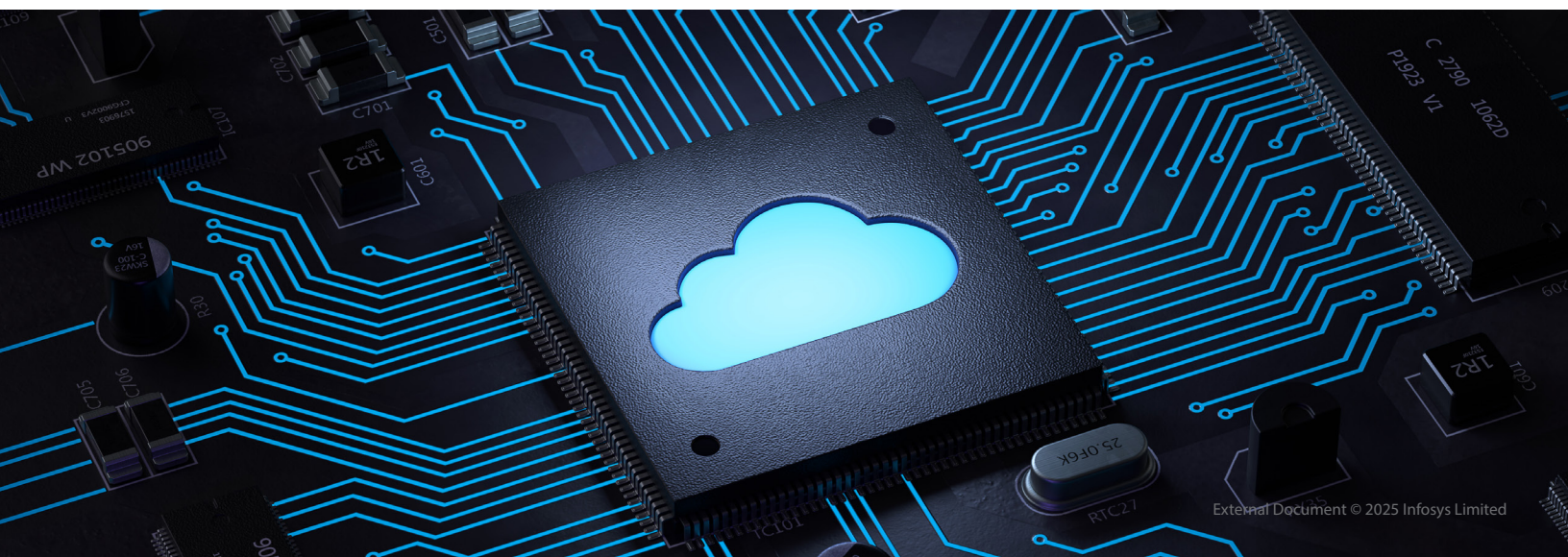
The new year's departmental budget is created using the previous year's adjusted budget. Salary increases are applied based on actual data along with the adjusted benefits.



Revenue fund budgeting

Revenue from transportation, food, debt service, and other departments including cash are offset with the expenses.

Typically, associate superintendents and the cabinet meet to review and finalize the budget for the next fiscal year, before board approval. As school districts face constrained budgeting in the coming years, district leaders must be cautious about school spending and collaborate closely with all departments and stakeholders to optimize expenditure.



3. Grants and invoices

School administrators submit grant applications that are approved based on specific workflows. First, associate superintendents and the cabinet review and approve the grant applications for evaluation by an external grantor. Following this, the grant summary budget is submitted to the state. The state reviews, seeks clarifications, and subsequently approves the award. Grant program managers can then allocate spend against the grant. The key spending categories are payroll expenditures (such as grant-funded hires and transfers) and non-payroll expenditures (such as purchases, expenses, and subcontracted services).

A primary concern with grants is preventing overspending. These require certain checks and controls in the following areas:

Tracking how effectively funds/grants are managed along with the variances for each expenditure

Managing overspending based on approval workflows that must be posted as journal entries

Monitoring expenditures and ensuring correct support documents for each expense

Managing the remainder of the grant, in case of underspending

Grant program managers consolidate all the expenditures, incorporate any additional spending, transfer allowable expenses, and then submit the carry-forward or extension requests in the final report to the grantor.



Enablers for Technology Transformation in K-12 School Districts

Technology transformation is critical for school districts to modernize legacy systems and achieve higher operational efficiency. Advanced cloud solutions can help school districts streamline administrative tasks, make data-driven decisions, and improve collaboration across various departments. Infosys recommends two effective strategies for school districts to modernize their operations: adopting ERP SaaS cloud and implementing agentic AI.

1. Adopt ERP SaaS cloud to modernize infrastructure

Leveraging an ERP SaaS cloud strategy can help school districts replace legacy systems with a modern platform. ERP SaaS cloud provides a unified platform with robust workflows and enhanced automation. This improves efficiency while reducing the total cost of ownership (TCO) across the system landscape.

This approach helps school districts in three key ways:



Define staff roles and associated costs

ERP SaaS cloud can be configured to reflect the organizational structure by defining the various departments and the cost centers. Roles such as directors, assistant superintendents, academic officers, and financial officers can be defined and assigned within the platform to manage the various functions in the organization.



Streamline HR for effective talent management

The HR module helps to seamlessly integrate all HR functions around performance management, talent management, and compensation within a single window. It handles employee data management, recruitment, onboarding, temporary staffing, talent planning, training, payroll management, and tracking hours logged. The HR module can also be closely integrated with financial, project, and procurement modules.



Track reimbursements for effective grant spend

In ERP SaaS cloud, the grants module is integrated with accounts receivable (AR) and cash receipts to automatically track reimbursements. This module also integrates with purchasing, accounts payable (AP), payroll, timekeeping, and HR. Billers can generate reports for all grant expenditures and provide supporting documents for federally funded grants. For state and other grants, expenditures are entered and invoices sent to grantors for reimbursements. Budgetary controls are also supported in ERP SaaS cloud to prevent overspending against the grants.



2. Persona-based AI agents with business insights

Persona-based AI agents perform specialized tasks in a seamless, organized, and collaborative environment. Agentic AI uses autonomous and intelligent systems to handle complex tasks such as budgeting. It also provides insights into controls based on the policies and frameworks approved by the school board of education. Figure 2 shows some of the business scenarios or use cases with agentic AI ERP SaaS cloud that can transform administrative work in school districts and drive data-driven decision-making across various business functions.

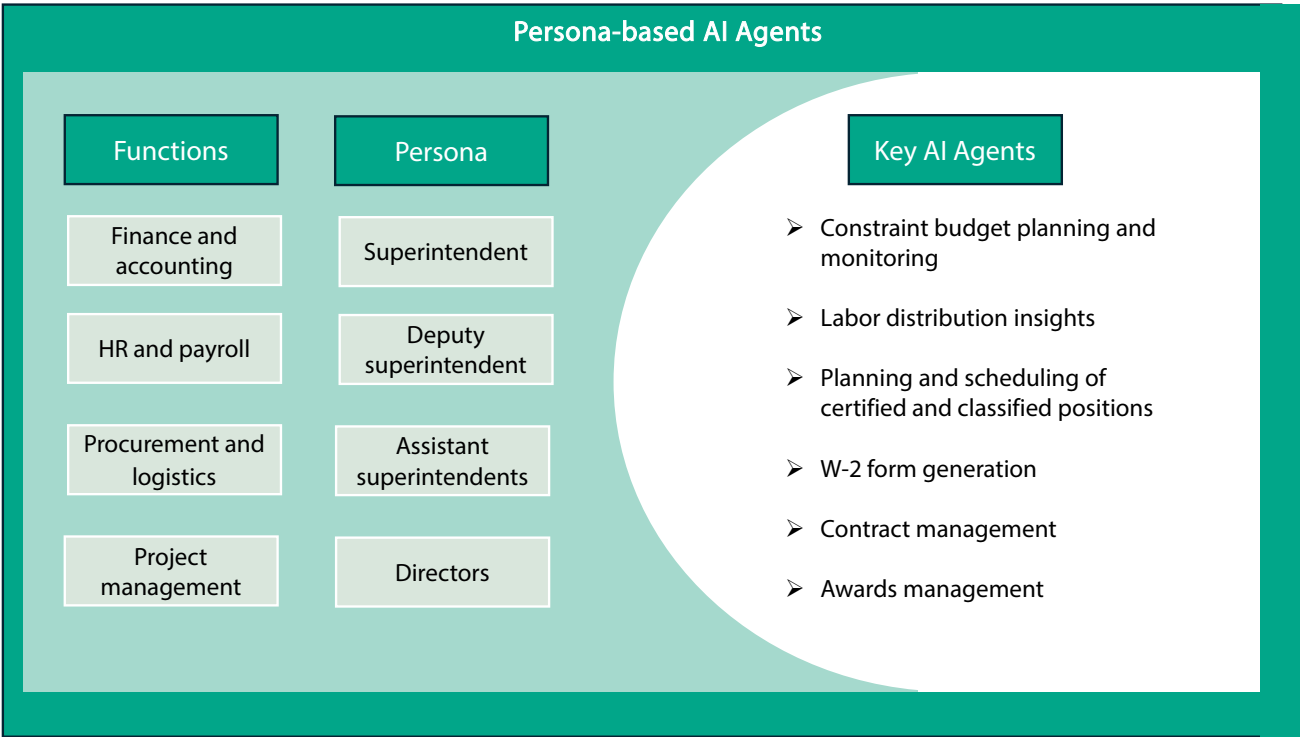
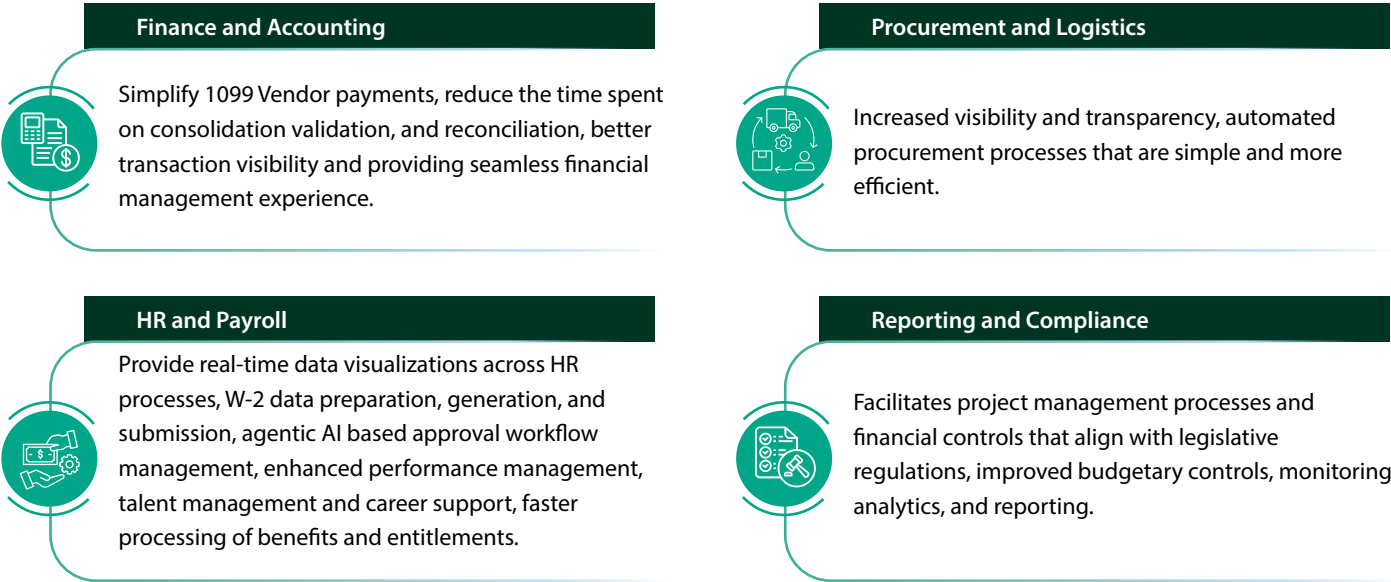


Fig. 2: Use cases of persona-based AI agents

Key Benefits of Technology Transformation

Infosys has a proven track record of delivering transformation with tangible business benefits. Some of the key outcomes of our engagements are:



Conclusion

School districts across K-12 need to improve their business processes around finance, accounting, HR, and procurement. Streamlining these tasks is necessary, not only to improve efficiency and reduce costs, but also to ensure data security and compliance. Administrative tasks in school districts are required to follow established hierarchical pathways while also maintaining inter-departmental collaboration. Leveraging ERP SaaS cloud is an excellent technology strategy that provides strong automation, integration, and controls across processes such as

payroll, compensation, recruiting, and more. Agentic AI is another useful emerging technology that deploys autonomous agents to execute complex tasks and support data-driven decisions. These two solutions can equip school district personnel with a single platform that fosters cross-departmental collaboration, financial transparency, and operational flexibility. This, in turn, will improve financial planning and timely decision-making, driving transformation across operations.



About the Author

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Chandra has 28 years of professional experience across consulting, project management, pre-sales in the services, distribution, manufacturing, hi-tech, healthcare industries and production shop floor.

Chandra has 24 years of experience as a technology transformation leader with Oracle cloud and Oracle E-Business Suite, he has helped clients in their digital journey with Infosys across multiple locations in India, Japan, UK, Canada, and the US. Chandra is a solution architect with the Infosys Oracle practice and has contributed to the industry solution with Oracle ERP Cloud

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