CCSD maintains a safe environment for students with IBM Maximo software

Overview

Challenge

Improve management of service requests and preventive maintenance to help staff maintain a safe environment for teaching and learning

Solution

A single work and asset management platform that enables operations to quickly see recurring issues, automate escalation and communication, and maintain comprehensive asset histories for governance requirements

Benefit

Faster response time for critical maintenance issues; greater customer satisfaction; increased asset reliability for reduced costs

When graffiti was scrawled outside one Calgary Catholic School District (CCSD) building, the "artists" didn't have long to enjoy their work. Within 20 minutes of the caretaker's e-mail to maintenance staff, the graffiti was removed.

It's a significant accomplishment in a district this size and a very visible demonstration of the value of the organization's new approach to work and asset management.

The district, which is the largest Catholic school district in Alberta, Canada, serves nearly 45,000 students from kindergarten to grade 12. Its 103 schools total nearly 5 million square feet and 480 acres and are spread across Calgary, Airdrie, Cochrane, Chestermere and the Municipal District of Rocky View. About 2,800 assets are under management, including 600 portable classrooms that can be moved from school to school as needed.

In 2002, facing an aging infrastructure and continued growth—the district has added two new schools each year for the past 15 years— operations staff looked to improve its approach to asset management. Previously, staff used a homegrown database system along with seven-part carbon work orders to manage service requests and asset maintenance. This very manual process slowed response times, made it difficult to track repair status and recurring problems, and hampered communication with school officials.

"We either had to become more efficient in how we managed our facilities or hire more people," says Al Berting, manager of Operations for the school district.

> *"Even though we've added new schools and increased our preventive maintenance, we haven't had to add more bodies to manage the work."*
>
> —Al Berting, Manager, Operations, Calgary Catholic School District

Automating processes improves efficiency

In launching its work and asset management initiative, the operations team had three primary goals:

- Streamline the service request process and centralize request prioritization and assignment to accelerate response time and help to ensure that priority repairs are handled quickly
- Improve communication between contractors and the district regarding open work requests to better track performance and keep schools apprised of the status of their requests
- Integrate data from multiple business systems, including human resources and financial management systems, to eliminate duplicate record keeping and gain greater visibility into asset costs

The school district evaluated several vendors' offerings and selected IBM® Maximo® Asset Management software for its Web-based service request capabilities and its ability to integrate and automate business processes.

"We're a longtime IBM shop with IBM BladeCenter® servers and some 13,000 IBM PCs," says Berting. "IBM Maximo Asset Management is a great product. It's stable and can be easily tailored to our needs."

Today, the school district uses IBM Maximo Asset Management software to manage all work for contractors and internal labor. Any district staff member, about 4,500 people, can generate a request in IBM Maximo software by simply sending an e-mail to the organization's maintenance team. Because requests can vary from a light that's

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—Al Berting

not working to no heat in a school to an application for new classroom equipment, the maintenance team reviews and triages each request and responds accordingly: contacting the original requestor if more information is needed; forwarding the service request to the school principal or caretaker for approval; or launching a work order based on the service ticket in the system.

Embedded escalation and communication features help to ensure immediate assignment of work to third-party vendors once a work order is issued. Vendors can automatically receive notifications via e-mail or SMS service, enabling rapid response as in the case of the contractor who removed the graffiti from the school.

Work orders for preventive maintenance are automatically generated and tracked using IBM Maximo software as well. Currently preventive maintenance is scheduled using time-based parameters. In the future, the organization plans to feed sensor and meter data from its control systems so preventive maintenance can be triggered based on equipment run time.

Approved vendors can access the IBM Maximo system so that they can provide real-time updates on work in process. With this information, district staff can monitor how well each vendor is performing against the district's timelines and proactively work to address any delays.

"IBM Maximo software has really streamlined the process and made it more efficient getting information to the people that need it in a timely manner," says Berting. "Our vendors receive work orders immediately for high priority items and can keep us apprised in real time of where a project is."

Using IBM Maximo Enterprise Adapter software, the district has integrated IBM Maximo Asset Management with Oracle's PeopleSoft human capital and financial management systems. As a result, IBM Maximo software can automatically add requestor and vendor information, including name, addresses and job codes or vendor numbers, to service requests and work orders.

"It really cuts out a huge administrative hassle for us," says Berting.

Greater visibility improves asset reliability

With asset information and work orders managed on a single platform, operations staff can now identify recurring problems, such as multiple service requests for a specific heating unit over a period of time; analyze repair costs to determine whether it's better to repair or replace an asset; and increase the ratio of preventive maintenance to unplanned work.

Solution Components

Software
- IBM® Maximo® Asset Management
- IBM Maximo Enterprise Adapter

"The feedback from our district members is that they love the automated updates."

—Al Berting

The availability of comprehensive work histories has also helped staff to easily confirm compliance with local and regional mandates, such as annually testing fire alarm systems and inspecting fire extinguishers.

"With 103 schools, it had been difficult to track ongoing problems and maintenance with a particular asset," says Berting. "With IBM Maximo Asset Management software, we have the information we need to analyze operations daily, understand overall asset costs and better prioritize maintenance."

This has made a significant difference in asset reliability and reduced the number of service requests received. Previously, the maintenance team received about 30 to 40 service calls on cold winter days because of problems with heating units in the portable classrooms. Now preventive maintenance on portable classrooms has cut the number of calls to just two or three a week during the winter.

And these advances have occurred without the need to add additional resources. "Even though we've added new schools and increased our preventive maintenance, we haven't had to add more bodies to manage the work," says Berting.

Improved communication increases "customer" satisfaction

For school faculty and staff, one of the greatest benefits of the new system has been the improved communication. Because IBM Maximo software provides automatic updates on service requests—from receipt to completion—requestors no longer have to track down maintenance staff to find out when their problem will be addressed.

"The feedback from our district members is that they love the automated updates," says Berting.

Maintaining a safe environment

In addition to traditional maintenance functions, the district also uses IBM Maximo software to manage the building keys. About 2,500 keys are signed out with 200 of those assigned for use by contractors. Each year, staff must manage nearly 1,000 transactions for signing keys in and out.

By using IBM Maximo software to support this process, supervisors can view districtwide who has which keys and perform spot audits to confirm possession. Using the software's escalation functionality in conjunction with a communication template, supervisors can send an e-mail to each individual currently holding a key. Response to the e-mail is an acknowledgement that the key is still in their possession and that they still require it. This allows for a more expedited rekeying process and can alert the school to a possible security breach.

Going green

According to Berting, the school has "big dreams" thanks to the versatility of IBM Maximo software. For example, by integrating data from its building automation systems with IBM Maximo software, operations staff will be able to better track power consumption and provide each school with guidance on how to reduce energy costs.

"For the past 15 years, we have worked to make our schools more energy efficient, whether it's replacing lighting or properly maintaining equipment to ensure it operates at peak efficiency," says Berting. "IBM Maximo Asset Management software will help us take these efforts to the next level with better and timelier information about actual energy usage."

For more information

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