

# Muskegon Area Intermediate School District

## PROFILE

### Muskegon Area ISD



#### Industry

Education

#### Corporate Headquarters

630 Harvey Street  
Muskegon, MI 49442

#### Employees

280

#### Website

<http://www.muskegonisd.org/>

## THE NUMBERS

- 70 virtual servers
- 7:1 server-consolidation ratio

## IN BRIEF

### Objective

The Muskegon Area ISD wanted to help alleviate the budgetary burden on Michigan schools by offering cost-effective technology services, as well as opportunities to outsource server hosting.

### Solution

The ISD virtualized its server infrastructure to improve manageability and make more efficient use of server capacity. This allows it to offer more services to schools, and keep the cost of those services low.

### Business Impact

- Schools save 35 percent on support costs alone
- The ISD can negotiate lower software licensing costs by up to 40 percent, and pass along the savings to schools
- The ISD can expand the services it offers, giving schools new opportunities to offload technology management tasks and associated costs

## VMware Enables Muskegon Area ISD to Expand Technology Offerings Cost-Effectively

*“Thanks to Data Strategy and VMware, we’ve achieved our goal of doing more with less. We can manage our infrastructure much more efficiently, while expanding the number of services we provide. The real beneficiaries, however, are the school districts that now have access to better technology services without increased costs.”*

— Randy Lindquist, Director of Technology and Infrastructure, Muskegon Area ISD

In 1962, the Michigan State Legislature created a new organizational structure for the state’s public school systems. A key element in the new structure was the formation of 57 Intermediate School Districts (ISDs). A key goal: to enable individual schools to pool their resources.

Ever since, the Michigan ISDs have helped districts achieve economies of scale through cooperative purchasing agreements and shared educational services. They formulate best practices and foster educational innovation.

Not every ISD fulfills this charter in the same way, however. An ISD based in Muskegon, for instance, decided to specialize in offering technology services.

It was a good decision. Many of the schools located in and around Muskegon, a city of about 40,000 people on the eastern shore of Lake Michigan, have long relied on the Muskegon Area ISD as a cost-effective technology resource.

But in recent years, the Muskegon Area ISD realized it had to refine its service offerings. It once relied exclusively on traditional servers to host its applications. But today, many of its servers are virtualized under VMware® technology. As a result, the Muskegon Area ISD can offer more services at lower cost—a very welcome claim in today’s budget-conscious environment.

### Technology Budgets Pared to the Bone

“Local schools are seeing huge budget crunches here in Michigan,” explains Randy Lindquist, Director of Technology and Instructional Services, Muskegon Area ISD.

It’s a story familiar to schools everywhere, of course, but in many respects Michigan schools have had it the worst. Michigan was one of the states hardest hit by the recent economic slowdown. Many of its communities are struggling with double-digit unemployment rates. State revenues have been falling for a number of years, and schools have had to accept deep cuts in funding.

And needless to say, when schools trim spending, they look for nonacademic expenditures first. As a result, many Michigan schools have pared their technology budgets to the bone. “Our schools can no longer afford staff to maintain servers,” Lindquist says. “They have trouble keeping their servers and applications up to date.”

As the Muskegon Area ISD watched these pressures mount, it decided it needed to help. Its idea was a simple one. All it had to do was expand on its existing model and shoulder more of its schools’ technology burden.

But it also knew it couldn’t succeed if its own overhead costs made that burden unsustainable.

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*“VMware lets me streamline my work in ways I couldn’t even dream of before.”*

Tim Brown,  
Network Systems Manager,  
Muskegon Area ISD

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## From Six Server Racks to Two—With Data Strategy’s Help

So the Muskegon Area ISD decided to start by putting its internal infrastructure in order. “We were having problems typical to a lot of data centers,” notes Tim Brown, Network Systems Manager, Muskegon Area ISD. “We were running out of space and power. We were adding new servers several times a year. Most of our servers were dedicated to only one application apiece.”

The Muskegon Area ISD suspected that the answer to its problems was virtualization. It also figured out, pretty early, which virtualization platform it wanted. “We knew from the start that we would go with VMware,” Brown notes. “It was the most mature, and the only product that supports the kind of availability we require.”

But Muskegon also wanted to enlist outside help to validate its assumptions and help with planning. So it attended some local virtualization conferences, where the team discovered VMware channel partner Data Strategy, a firm that offers virtualization consulting services, assessments, proof of concepts, and implementation. “We liked what Data Strategy brought to the table,” Lindquist says. “We had a whiteboard session with them, and they helped us see the big picture. They gave us a vision for how VMware virtualization could give us the capacity to add new services and bring on new customers.”

With Data Strategy’s help, Muskegon Area ISD got to work replacing physical servers with virtual systems. “We pared our data center down from six racks of around 30 servers to two chassis holding 14,” Brown says.

Virtualizing immediately paid off in other ways as well. “We can take our servers offline to perform maintenance and apply patches,” Brown explains. “We don’t have to interrupt availability for maintenance, or schedule downtime in the middle of the night or on a Sunday morning. We no longer need to warn our customers about downtime, because our maintenance is now completely transparent to them.”

Brown also likes the fact that he can create virtual servers as temporary test environments. “We can play around, test new applications or upgrades, without incurring hardware costs,” he says. “It’s completely changed the way I work. My job used to be about the care and feeding of servers. Now I’m able to focus more on applications.”

## Improved Services at a Lower Cost

The biggest benefit of implementing VMware, however, is the improved level of service the Muskegon Area ISD can offer to its customers.

A prominent example is the new finance software, Munis by Tyler Technology, that the ISD implemented on its virtualized environment. “It’s a more advanced solution than the accounting and HR application we offered previously,” Brown says. “The user interface is friendlier. It has more robust reporting capabilities.” The new system also supports the ability to archive invoices electronically. “Our customers no longer have to make trips to the school basement to find old invoices.”

More user friendly, better functionality—and yet, because the ISD is hosting the application in a virtualized environment—the new finance software is also very cost-effective for schools. “We charge schools for usage,” Lindquist says. This software-as-a-service (SaaS) model means schools don’t have to buy or manage the necessary software. They don’t have to worry about keeping the software up-to-date. “We save districts 35 percent in support costs alone.”

The Muskegon Area ISD also offers student information management software under the same model, with similar benefits and cost savings for schools.

The savings are so compelling that the ISD has attracted schools from areas outside of Muskegon County. Today, it has around 40 customers altogether. This, in turn, means the

district can negotiate lower software-licensing deals. “Because we’ve consolidated more users on one system, our licensing costs are discounted by as much as 40 percent,” Lindquist says. “We pass that savings straight to the schools.”

**Able to Say “Yes”**

Virtualization has let the Muskegon Area ISD do more than upgrade its existing software services. The VMware environment is so easy to manage, and allows so much more to be hosted on the district’s physical systems, that the ISD has been able to add completely new services as well.

As a result, a few years ago, the ISD focused on a couple of applications. Now it runs numerous Web, file, blog and Moodle servers on behalf of its customers. In fact, some three years after it began virtualizing, the Muskegon Area ISD hosts around 70 virtual servers—more than double the number of physical servers it had in its environment before it implemented VMware.

And it’s not finished. “We expect schools will start outsourcing their entire data centers to us,” Brown says, noting that one district has already committed to moving a half dozen of its servers onto the ISD’s VMware infrastructure next summer. This will be a real money-saver for schools. “With VMware, our costs are so low we can almost give hosting away,” says Brown. Hosting services at Muskegon Area ISD also allows them to offer backup services to schools.

To help prepare for expanding its IT service offerings, the district continues to rely on Data Strategy. “They help us with everything from specifying hardware through managing requests for proposals and incoming bids,” Brown says.

“Data Strategy helps us identify the best solution for our organization,” Lindquist adds. “They never push us to buy particular technologies. Instead they take the time to understand our needs and then, once we’ve decided what to do, they help us move forward. It’s a great partnership.”

The ISD team also attends a yearly virtualization workshop that Data Strategy hosts. The workshops help the district better understand VMware and gain even more confidence in the technology.

As the Muskegon Area ISD cultivates its virtualization expertise, it strives to educate other organizations within the Michigan educational system about the benefits of VMware. “We often hold county-wide meetings to show what we’ve accomplished,” Brown says.

These meetings often result in new requests for the technology services the ISD offers. But that’s all part of the plan—and the Muskegon Area ISD is ready. “When people come to us and say, ‘can you host x?,’ we are prepared to say ‘yes’ and make it happen,” Lindquist says. “It’s exactly where we want to be, and we’re here because of VMware.”

IMPLEMENTATION OVERVIEW OF FUJIFILM SYNAPSE MANAGED SERVICES		
<p><b>VMware Products:</b>                      VMware vSphere 4.1                      VMware Hypervisor (ESXi)</p>	<p><b>Applications:</b>                      Munis financial software                      Student information management system</p>	<p><b>Platform:</b>                      HP BladeSystem c-Class server blades                      HP StorageWorks Enterprise Virtual Arrays</p>

