



Grand Rapids School District

Case Study

The Challenge

Provide controlled environment for network hubs in school district

The Solution

The Liebert Foundation™ MCR (Mini Computer Room)

The Liebert Difference

- Unique product design
- Product reliability and performance

The Partner

Hedrick Associates

Foundation Mini Computer Rooms Enable School District to Decentralize Network Without Compromising Availability

The Situation

When the Grand Rapids School District decided to disperse the district's network hardware to six locations instead of keeping everything in the existing central computer facility, it needed to assure the decentralized equipment would deliver the same level of availability as it had in the central computer room.

Meeting these availability requirements dictated the systems be in an environment with clean air controlled to the right temperature and hardware kept under lock and key to prevent unauthorized access by the curious or mischievous.

The Solution

"The Liebert Foundation MCR (Mini Computer Room) was the only product that fit the bill," said Craig Ghareeb, network and systems administrator for the Grand Rapids, Michigan, School District. "We used Foundations to act as six computer rooms, one at each hub."

Four of the Foundation units are located in renovated custodial closets. The renovations included the addition of electrical service and exhaust fans to pull in several air changes each hour. The other two Foundations are in a copy center and in the district's A/V repair center, both of which are open to student and staff traffic.

Ghareeb ordered one Foundation as a trial, installed it in one of the designated locations, filled it with network equipment, outfitted it with environmental monitoring sensors, and flipped the switch to see how it would perform. It performed flawlessly throughout the three-month test period. After the test, Ghareeb ordering five more units.

For each location Grand Rapids ordered two units joined together without a center partition. One of the units holds an air conditioner that circulates conditioned air through both sides, maintaining a controlled environment as specified by network equipment manufacturers.

Hedrick Associates was the Liebert representative on the job. The Foundation Mini Computer Rooms were sold by Sarcom.



“The Foundation Mini Computer Room was the only product that fit the bill.”

Craig Ghareeb,
network and systems
administrator, Grand
Rapids School District

Each of the Mini Computer Rooms has a factory-installed Backup Cooling Module. If there is high internal temperature, an air access door automatically opens and a fan comes on to exhaust hot air from the enclosure and minimize heat buildup. All of the Foundation Mini Computer Rooms are also equipped with sensors that sound alarms in the central computer room...half a city away. If the temperature drifts out of a pre-established range or the doors are left open, network managers can take immediate corrective action such as sending out a technician.

Plus, the Liebert Foundation MCRs provide more than just environmental control. They are a complete solution to system support, integrating cooling with UPS power protection, physical security and monitoring options.

The Results

“By dispersing the hardware, we minimized the chance of a single incident taking down the entire network across the whole city,” said Ghareeb.

The network for the Grand Rapids School District encompasses 80 buildings and connects some 10,000 personal computers. The first implemented service was an e-mail system for the teachers and staff, and between staff and students equipped with home computers and Internet access.

The master plan devised by Ghareeb calls for adding new applications to the network. As each application is added, dependency on the network will increase. Reliable service, accessible 24 hours a day, seven days a week, is paramount.

The Liebert Foundation MCRs allowed the Grand Rapids School District to implement its plan for the dispersal of its network hardware, while providing the controlled environment required for maximum service life of the sensitive electronics they house.

Now, as Grand Rapids network use expands, supported by Foundation Mini Computer Rooms, the networked schools will always be in session.



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