Background

A four-year project to implement an integrated workflow management platform introduced new technology into the data center that increased heat loads, but also threatened current operations and future technology deployments. “We simply did not have the infrastructure to move forward,” says Kent Hoyos, CIO at Pomona Valley Hospital Medical Center.

Case Summary

Location: Southern California

Products/Services:
- Liebert XD cooling system
- Liebert XDP pumping units
- Liebert XDV cooling modules

Critical Needs: Eliminate heat-related equipment problems in hospital data center created by introduction of new technology required to eliminate paper-based processes.

Results

- Expanded data center capacity with flexible and scalable mission-critical cooling system.
- Eliminated heat-related equipment failures.
- Significantly reduced help desk calls resulting from poor performance of data center systems.
- Paved way for implementation of integrated patient accounting, electronic physician order entry and patient health care record projects.

Pomona Valley Hospital Medical Center

Nationally recognized as a Top 100 Hospital, Pomona Valley Hospital Medical Center is a 436-bed acute-care teaching hospital that serves Eastern Los Angeles and Western San Bernardino counties.
The Solution

As temperatures in the data center rose, space limitations prohibited bringing in additional precision cooling systems. Hoyos investigated chilled water solutions, but rejected them because of concerns about introducing water into the data center. The hospital consulted with TMAD/Hengstler engineers, who recommended the Liebert XD family of high-density cooling solutions.

High-capacity, rack-mounted cooling delivers the needed capacity and flexibility
Twenty Liebert XDV cooling units and two Liebert XDP pumping units were installed to supplement existing data center cooling systems. The Liebert XD mounts to the top of the rack and delivers cooling of up to 500 watts per square foot using a coolant that is pumped as a liquid to the cooling module, where it vaporizes to a gas while absorbing heat energy.

“I really liked the fact that there is no risk of liquid leaking into my data center,” says Hoyos. “Also, the system’s flexibility means that it can easily adapt as we expand our mission.”

Quieting the help desk
“We thought we would need to supplement the Liebert solution with additional cooling, but the Liebert XD did the job by itself,” Hoyos says. In fact, when the system began operation and all units were running at full capacity, the temperature in the data center fell by more than 30 degrees. And, something extraordinary happened.

“All of the sudden the help desk got quiet,” Hoyos says. “The problems that we were experiencing because of the un-optimized operating conditions just ceased.”

Hoyos is confident that the data center environment can now support the hospital’s future technology needs. “With the Liebert XD system, we can add 100 percent more capacity and still be within safe operating conditions,” Hoyos says.