



# Big 12 University Case Study

## Distance-Read Leak Detection

Monitor. Integrate. Alert. Peace of Mind.

### Our Customer

This Big 12 University's 35,000 students and 2,000 faculty and staff members engage in almost 300 degree programs. Renown for its very active research community, it's the largest University in the state and draws students from around the globe.

The 2,000 acre campus houses 160 buildings, some of which date back to the 1800s, and include 20 residence halls, museums, and a horticulture garden.

### Products Leveraged

- o LD2100 distance-read leak detection controller
- o Leak detection sensing cable
- o Non-sensing cable
- o X-Connectors
- o J-Clips and cable caution tags
- o Framed leak detection map
- o Installation and commissioning services



*The needs of a growing campus population can strain a University's computing resources.*

*A team that works together with foresight and planning ensures students, faculty, and campus systems will work together smoothly for years to come.*



### The Situation

Increasing enrollment is a boon for colleges and universities, but that growth in student population brings with it an increased pressure on facilities and resources. More students means more dorms, more instructors, and more classes. Each and every one of these additions strains demand on the computing resources at a school. And now, as schools push to expand online learning opportunities in the face of a global pandemic, the need for reliable technology resources with the necessary monitoring to ensure minimal downtime is more important than ever.

We recently worked with a midwestern Big 12 University to design, install, and commission a leak detection system in their newly-expanded data center. They had seen how growth was affecting their infrastructure, and knew an upgrade was necessary to continue to provide high quality services to over 35,000 students and administrators on almost 2,000 acres of campus.

### The Solution

Data center managers planned their project and analyzed what worked and didn't work in their current facility. They had leak detection in their data center and realized its value - they knew a water leak could cause massive failure in their environment. But their current water detection system frequently sent false alarms and was too old to repair.

A quick web search led them to RLE Technologies. They were impressed with the features RLE provided, including:

- RLE's patented leak detection sensing cable - It's engineered to resist false alarms, flexible



enough to bend around corners, and is available in a variety of lengths with mating connectors, so it's quick and easy to modify your sensing cable layout.

- **Alarm capabilities** – When a leak is detected, RLE’s controllers send emails, display alarms on an integrated graphical map, and integrate into larger BMS systems for comprehensive alarm notification.
- **Affordability** – RLE monitoring systems offer more features and better quality at a lower price point than the competitors.



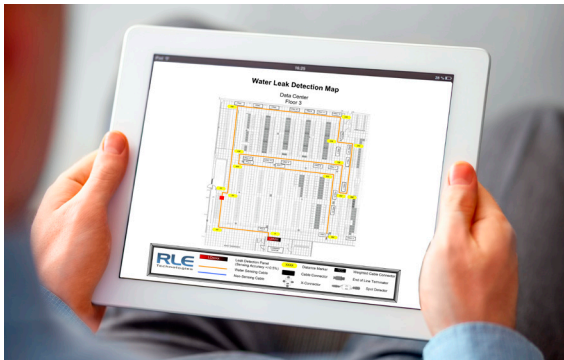
Originally, the team looked at a zone solution for their facility. Zone leak detection tells you that you have a leak in a monitored area and you need to access the space to locate the leak. After a quick conference with RLE’s technical sales staff, the University’s staff realized that wasn’t quite the right fit for them. Since they were installing leak detection under a raised floor, they wouldn’t be able to view the space they were monitoring. That meant a distance-read leak detection system was the better solution - it pinpoints the exact location of a leak when it happens, so their staff wouldn’t have to pull a series of tiles in an effort to find a leak.

RLE’s technical sales and services staff helped clinch the sale. After a conference call to assess the scope of the job, the University sent over scale drawings of their data center. RLE designed a custom solution for the data center and sent over a complete BOM for the job.

The University also contracted RLE to install and commission the leak detection system. Two RLE Services staff members – one of whom is actually an alumni of this University - flew to the school and spent two days installing, commissioning, and testing the leak detection system and its 800 feet of leak detection sensing cable. They mapped the leak detection system completely and provided the University with a digital and hard copy of the map they created. Everything was completed on time, to spec, and on budget.

### The Test

Two days after the RLE team left the University, the LD2100 they installed sent an alarm to the data center manager. A leak had been detected along the northwest wall of the data center.



They were skeptical, but the data center manager and his staff went to the location pinpointed on the map of the LD2100 and pulled the raised floor tile. Water was pooling from a failed valve. If this leak had gone undetected, and it would have without underfloor leak detection, damage to mechanical and server equipment could have disrupted connectivity to the entire campus.

The data center manager called up Mike Hadt, RLE’s Midwest Account Manager, to tell him about the detected leak and thank RLE for the diligence of engineering and the on-time installation. The DCM stated, “Any delay in timing to catch this water leak would have cost the University a ton of time, energy and resources that it did not have available to devote to this problem.”

### RLE Equipment Used in This Application

- LD2100 - Distance-read leak detection controller
- PSWA-DC-24 - Power adapter
- SC-50 and SC-100 - 800’ of leak detection sensing cables in a mix of 50’ and 100’ lengths
- NSC-50 - 100’ of non-sensing cable
- X-CON - Cable branching devices, single input, three “branch” outputs
- JC - J-Clips to secure cable
- SC-T - Cable caution tags
- FM1114 - Framed reference map
- RLE Installation and commissioning services

