



A \$1.5M Steam System Failure That Could Have Been Prevented

How continuous steam system intelligence uncovered the conditions behind a costly infrastructure failure

THE SYSTEM

A municipal steam utility plant serving the heart of a major city.



100+
Buildings
Served



235
Steam
Traps



250+
Manholes
& Vaults



12
Miles of
Buried Pipe



125 PSI
Saturated
Steam



30-300
Mlb/hr
Demand

This was a large municipal steam network that had evolved over decades; expanding, connecting and adapting to changing demand.

Like most steam systems, maintenance included periodic inspections of mechanical traps and point-in-time assessments to evaluate system health.

The challenge wasn't a lack of maintenance. It was a lack of visibility into how system conditions were changing between inspections.

THE EVENT

\$1.5M INFRASTRUCTURE FAILURE



Trap Underperformed

Water removal became less effective.



Water Accumulated

Moisture built in the system.



Moisture Impingement Begins

Operating conditions changed.



Long-Term Expansion Joint Damage

Water impingement created critical infrastructure damage.



Catastrophic Failure

\$1.5M in damage and months of disruption.

The failure was noticed when a leak was discovered at the first expansion joint downstream of one of the plant's main distribution lines.

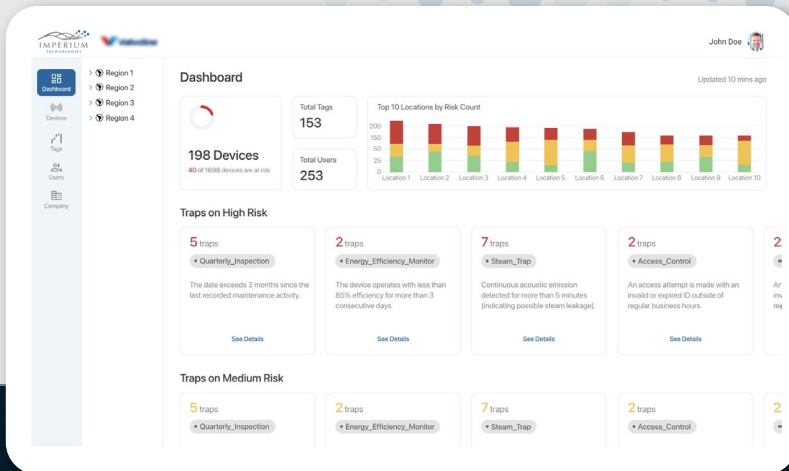
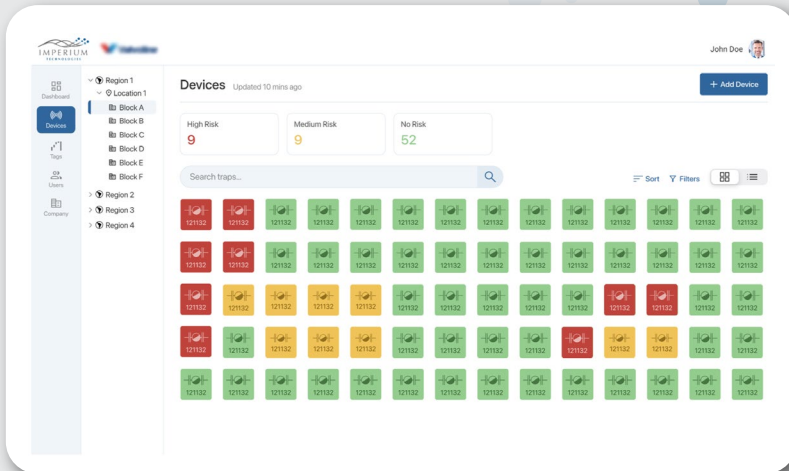
What followed was significant infrastructure damage, energy loss and more than \$1.5 million in repair costs. While the failure appeared sudden, the conditions that caused it had been developing for months throughout the system.

The expansion joint didn't fail without warning.

The warning signs existed throughout the steam system months before the failure occurred – but went completely undetected.



WHAT WAS ONCE INVISIBLE IS NOW PREVENTABLE.



What Operators Can Now Prevent


**Infrastructure
Damage**


**Energy
Waste**


**Manual
Guesswork**


**Emergency
Repairs**

With continuous visibility into water removal, duty cycle, pressure and temperature, operators can identify changing conditions before they damage infrastructure, waste energy or trigger costly failures.

Because the goal isn't simply understanding what happened. It's preventing the next failure before it occurs.

To find out how you can have insight into your steam distribution system, call: 512-695-8327