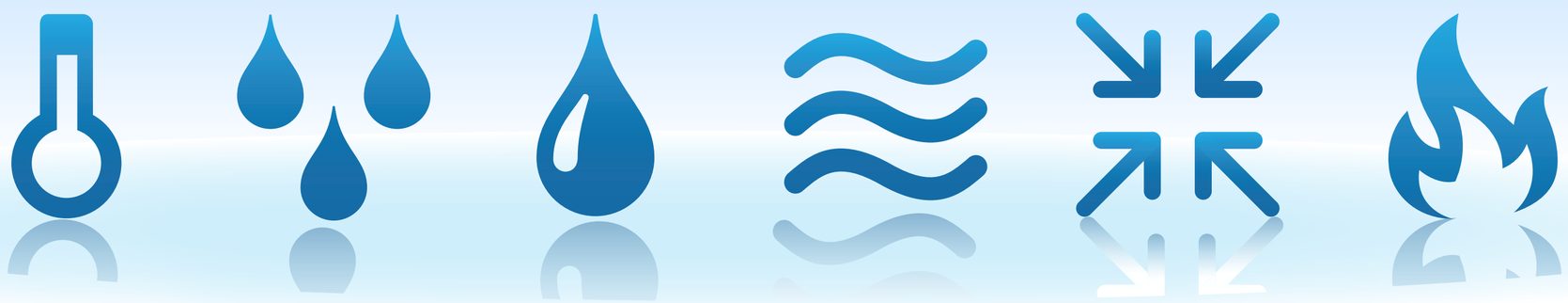
5 Reasons

Environment Sensors are used in all Modern Data Centers



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Why Environmental Sensors?

- Sensors can help prevent overcooling, undercooling, electrostatic discharge, corrosion and short circuits.

- Sensors help organizations to reduce operational costs, defer capital expenditures, improve uptime, and increase capacity for future growth.

- Sensors provide environmental monitoring and alert managers to potential problems like the presence of water, smoke, and open cabinet doors.

- Sensors can save you up to four percent in energy costs for every degree of upward change in the baseline temperature, known as a set point.

  (Source: Gartner)

The age old adage is true, “You can’t manage what you don’t measure.”

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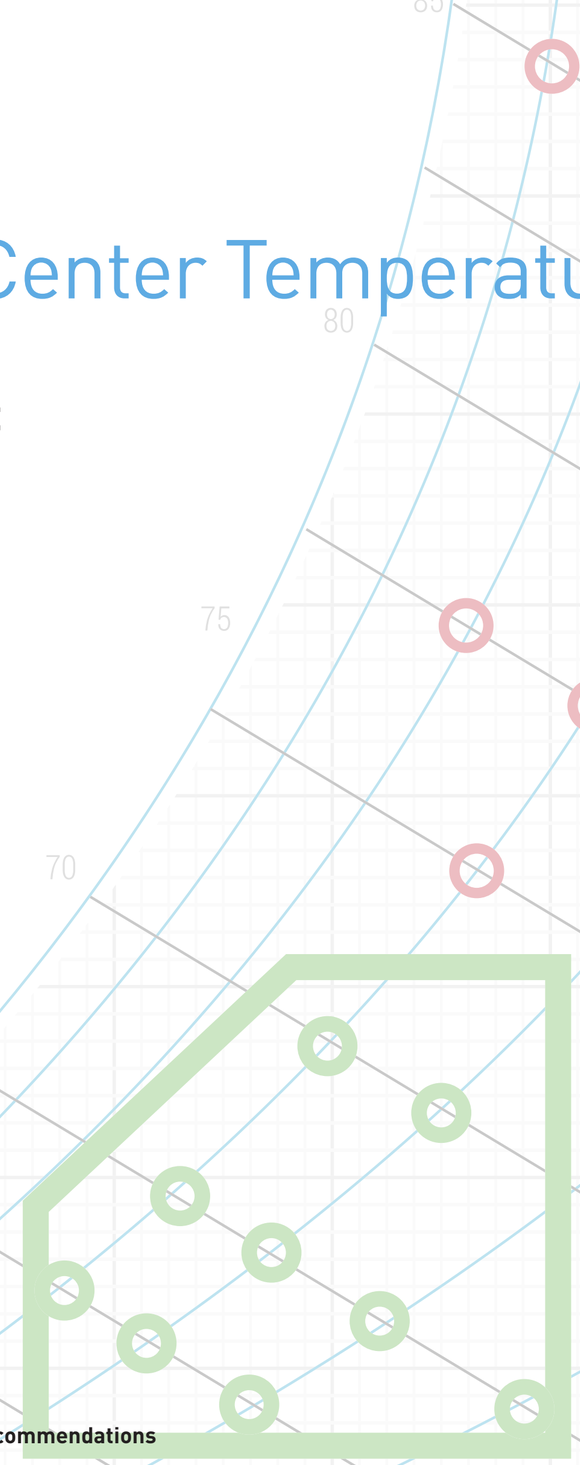
REASON 1.

Save on Cooling by Confidently Raising Data Center Temperatures

Raise the ambient temperature to save energy with confidence that you won't overheat sensitive IT equipment.

- Temperature sensors at the rack inlet provide far more accurate, real-time views of data center temperatures compared to CRAC readings alone.
- Some temperature and temperature/humidity sensors are designed to follow ASHRAE sensor placement guidelines for accurate and complete readings of top, middle and bottom of racks.*
- Temperature information can be used to optimize the cooling system, e.g. shutdown one or more CRAC units as needed.
- See temperature trends and identify hot spots which can occur for a variety of reasons, many counterintuitive.



***Read Thermal Guidelines for Data Processing Environments, Third Edition to Learn ASHRAE's guidelines and recommendations for optimizing your data center for maximum performance and reliability.**

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REASON 2.

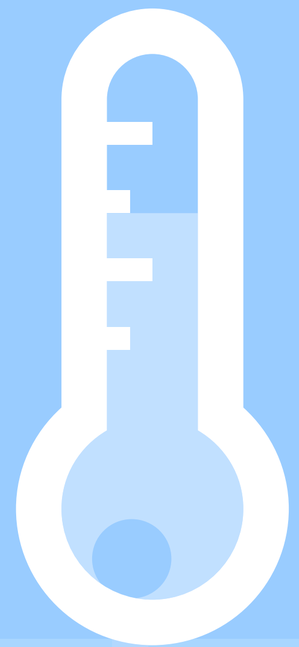
Prevent Hot Spots and Ensure Uptime by Monitoring Airflow and Air Pressure to and from Racks

Achieve energy cost savings by reducing the airflow to only what is required.

- Airflow sensors let you monitor cooling airflow and hot air return to ensure the cooling system is functioning properly, and ensure airflow is at the right level so the entire rack receives inlet cooling air.

- Differential air pressure sensors identify air pressure differences that could lead to hot aisle / cold aisle partition leaks and can be used to control CRACs to ensure adequate cooling airflow is provided.

- Underfloor air pressure sensors provide feedback to CRAHs, CRACs, or the building management system that alters fan speed as necessary to meet the underfloor pressure set point.



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REASON 3.

Maintain Cabinet Security with Contact Closure Sensors

Ensure the safety of your racks and meet internal and industry security mandates.

- Contact closure sensors can be used to trigger an event so that a webcam snaps a picture whenever it detects that the cabinet door has been opened.
- Dry contact closure sensors have provisions for third-party devices like smoke detectors that will alert you to fires.
- Dry contact sensors detect electronic door opening and locking so that you are able to ensure equipment changes are executed securely.

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REASON 4.

Improve Data Center Uptime with Environment Alerts

Protect valuable devices and eliminate costly downtime from IT equipment failure.

- Humidity sensors help you to maintain proper humidity levels and avoid electrostatic discharge (ESD) problems when humidity is low and condensation problems when humidity is high.

- Water sensors detect if there is a water leak from external sources or from pipes in a water-cooled rack, and will also detect the presence of a 50% glycol mixture.

- Data center managers can set thresholds and alerts to monitor onsite, remote, or lights-out facilities to ensure equipment is operating in safe conditions.

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REASON 5.

Make Strategic Decisions on Environmental Designs and Modifications

Environmental sensors let you spot trends, get alerts, improve data center availability, and save energy.

- Environmental sensors used alongside **Data Center Infrastructure Management** (DCIM) solution allow you to monitor temperature in real-time and calculate potential savings.

- Optimize your data center ecosystem to ensure that you are meeting guidelines and set points, reducing operational costs, and improving your **power usage effectiveness (PUE)**.

- Discover and reclaim unused data center capacity and defer capital investments in equipment and facilities.

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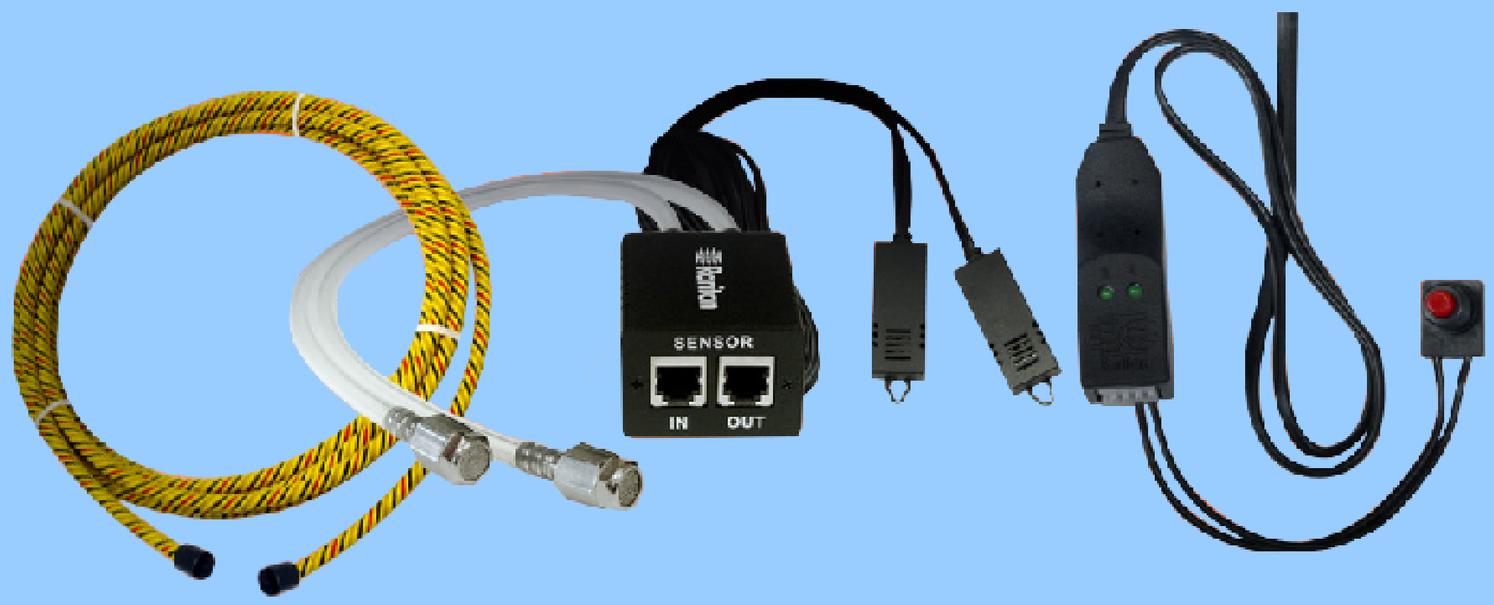
Why Raritan for Environmental Sensors?

- **Unlike other vendors, when plugged into Raritan network enabled PX intelligent rack PDUs there's no need for a separate controller or network drop which reduces overhead and simplifies deployment.**

- **You can team your sensors up with Raritan's powerful web-based DCIM energy management solution for a real-time view of your environment, and report on environmental trends over time.**

- **Raritan sensors are easy to install, making them non-disruptive when it comes to your daily operations. And, they can scale to serve small labs and large facilities alike.**

- **Raritan plug-and-play temperature and temperature/humidity sensors are field replaceable. When the humidity sensor accuracy naturally diminishes, you don't need to remove the entire sensor, just the sensor head to maintain a high degree of accuracy.**



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Who uses Raritan Environmental Sensors?

With compute loads - and operating costs - on the rise,
eBay established a four-year data center plan with an ambitious goal: To cut power costs in half, double compute performance while gaining greater operational agility and increased reliability. They succeeded... **with Raritan's help.**

Ready to learn more?

More on Sensors

Learn more about Raritan's Sensors.

LEARN MORE

Schedule an Online Demo

Schedule a demo to learn more about our iPDUs.

SCHEDULE TODAY

Get a starter Kit

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