

Upgraded Contamination Control Protects Data Center Uptime

Why is protecting equipment from air and surface contamination important?

An average minute of data center downtime costs \$8,851¹



80% of data center managers say their last outage was **preventable**.²



70% of data center failures are caused by **human error**.³



74% of data managers believe their last outage of \$1M or more could have been prevented with better **processes, management, or configuration**.⁴

Your data center isn't average. Upgraded procedures protect on three fronts:

1 Control All Entry Points to Keep Contamination Out:

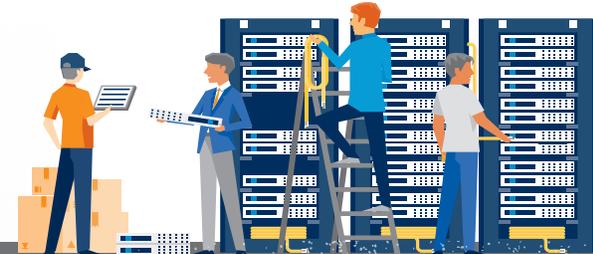
- Use double sets of doors
- Seal the envelope
- Install entryway matting
- Restrict operations and materials
- Keep out particles, cut energy cost of cooled air loss
- All assembly or unpacking should happen in staging areas outside the data center

2 Control What's Already Made It Inside:

- Empty all trash receptacles daily
- Target all entryway floors for vacuuming
- Use strict SOPs for tools and cleaning patterns
- Subfloor plenums and drop ceilings decontaminated
- Monitor humidity levels
- Micro and macroscopic protocols
- Use cleaning products approved for data center equipment

3 Control the Equipment that Controls Your Environment:

- Change cooling system filters on schedule
- Clean ducts and airways on schedule to avoid buildup
- Maintain systems mechanically
- Stop particles created by wear and tear



Particular Problems:

Air pollution | Dirt and dust | Electrostatic dust | Ferrous metal particles | Fibers | Human hair | Lint | Packing materials | Pollen | Salt (sea or de-icing) | Skin particles | Zinc (and tin) whiskers

All your operations and equipment affect each other.



Particulates in HVAC systems can increase cooling energy costs.

EPA recommends removing contaminants to reduce energy use.⁵



Airborne gases can also lead to corrosion and failures.

ASHRAE recommends data centers monitor for corrosion rates.⁶



Particles and build up can interfere with critical equipment and cause failures.

ASHRAE recommends ISO Class 8 clean room requirements for data centers.⁷

We Develop Targeted SOPs for Data Center Contamination Control
Talk to the Team that Optimizes Operations for Uptime and Efficiency

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Sources: