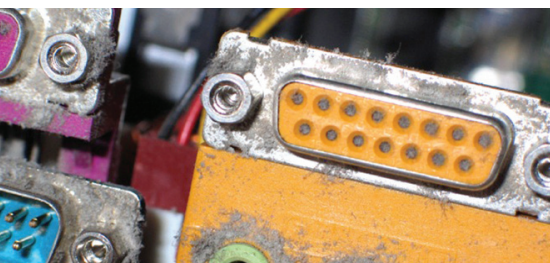


Why Decontaminate?

The compelling case for a regular Data Centre health regime

Unplanned downtime in a Data Centre environment can prove extremely costly, and most organisations have a detailed and prescriptive preventative maintenance regime designed to mitigate the risk of such downtime. Typically, this regime would include monitoring and maintaining such factors as power, temperature and humidity, with particular focus on the management of the airflow to ensure optimum and requisite cooling. Contamination management is one area that is only included on the regimes of either the more enlightened Data Centre Managers or those that have experienced downtime.



Contamination can take various forms, however over 80% of all contaminants within a Data Centre environment are caused by human traffic, whether this is dust, particulate from cardboard and packaging or contamination created from works within the Data Centre. Some contamination derives from the environment itself including concrete particles from an untreated sub floor, or fibres from air filters or zinc whiskers from oxidising metal.

No matter what its source, contamination can be extremely hazardous within a Data Centre:

- Dust and other particles can clog air intake grills on cooling units and fans resulting in overheating, cooling equipment operating beyond capacity causing premature failure, power overloads and outages.
- Metal particulates such as zinc whiskers can cause electrical shorts in equipment.
- Dust and other contaminants can either block fire detection systems preventing effective use or can actually trigger false alarms or actual discharge.
- Airflow and the resulting cooling can be seriously impacted by contaminants and debris within the subfloor and floor grills.

The awareness of maintaining a 'clean' environment is growing amongst the standards and the OEM communities:

- A number of hardware manufacturers are considering the cleanliness of the environment as a factor when assessing the validity of RMA and warranty claims.
- Several major manufacturers recommend in their hardware installation guidelines that "every effort should be made to ensure that the target environment is as dust and particulate free as possible".
- ISO 14644-1 Air Cleanliness guidelines are encouraging compliance as an inherent part of the Data Centre management process.

The benefits of professional Data Centre decontamination include:

- Improved efficiency of cooling systems
- Increased longevity and performance of hardware
- Improved power consumption
- Increased reliability of data centre uptime
- Compliance with contamination best practice guidelines
- Full preventative maintenance regime
- Peace of mind through risk mitigation

