

Five Things Every Data Center Must Have - IO



Copyright © 2013 IO Data Centers

IO Blog



Five Things Every Data Center Must Have

June 21st, 2010 / Sarah / 0 comments

SHARE 

Data centers are chock full of various “must-have” assets, including servers, storage systems, switches, cables, cabinets and so on. But what are the other important items that every enterprise-grade data center should have? The list boils down to these five essentials:

1. Steady Power. Without reliable electricity—delivered directly from redundant, dedicated feeders—a data center is vulnerable to power outages caused by storms, nearby fires and accidents and a variety of other natural and man-made causes.

The condition of the power delivered to the data center is also crucial. But power conditioning is one of those boring topics, like making regular data backups, that people generally only become enthusiastic about after a horrible experience. Nevertheless, electrical surges, sags and spikes can all degrade system performance and potentially damage expensive hardware. That’s why it’s vital to use uninterruptible power system (UPS) devices incorporating line conditioners that smooth and improve electricity whenever necessary. For extra protection, it’s a good idea to use UPS units from several different vendors to protect against manufacturer-specific defects that could impact UPS operation.

2. Adequate Cooling. As equipment power density steadily rises, cooling becomes increasingly critical. In the past, it was sufficient to simply place computer room air conditioners (CRACs) around a facility’s perimeter. But with today’s IT equipment pushing data centers toward ever higher density levels, cooling challenges mandate more drastic measures.

Today’s power density levels mean that data centers can no longer rely on air-cooling alone. This is why more data centers are turning to chilled water-cooling systems to remove heat. Leading edge facilities take advantage of variable frequency chillers, pumps, cooling towers and air handlers, as well as ultrasonic humidification and thermal energy storage to enhance energy efficiency and reliability.

3. Raised Flooring. Perhaps the least exciting part of any data center is its floor. But for your operations to reach new heights, you'll need to start working at the very bottom. A raised flooring system is mandatory for all but the smallest data centers. Despite the additional cost, raised flooring provides several benefits, including enhanced air-flow. Raised flooring also creates a dedicated space for pipes carrying chilled water and essential smoke detection technologies.

4. System Security. Strong security measures are critical if you hope to keep your data center safe from tampering and espionage. On the network edge, look for a managed firewall service that includes the hardware, software and licensing components you'll need to protect your network against Internet-based threats.

System security also means strong physical security measures, including multiple layers of access controls. Closed-circuit TV surveillance, biometric screening and access badges are among the measures necessary to keep unauthorized users from entering the data center and accessing its equipment.

5. Enterprise-grade Network. Every data center should include best-in-class networking equipment (e.g. Cisco), multi-homed Internet bandwidth from leading telecommunications carriers and a strong data transport offering (over dark fiber) to allow for synchronous/asynchronous replication in accordance with established disaster recover and business continuity plans.

Tags: data center, Raised Flooring, Uninterruptible Power Supply

Leave a Reply

Your email address will not be published. Required fields are marked *

Name *

Email *

Website

Comment

You may use these HTML tags and attributes: <abbr title=""> <acronym title=""> <blockquote cite=""> <cite> <code> <del datetime=""> <i> <q cite=""> <strike>

POST C



www.io.com