If your UPS isn't virtualisation ready, it isn't future proof

If you think virtualisation isn't for you, consider this

Respected IT industry analysts, Gartner, expect nearly 80% of server workloads supported by x86 hardware to be running on virtual machines by 2016. So, if you're considering investing in a UPS system, it makes good business sense to ensure that it's ready for virtualisation.

Guaranteeing business continuity is the top priority for most operators of IT systems and, implemented correctly, virtualisation makes it easier to achieve this key objective. Since virtualisation also drives down costs by allowing IT resources to be used more efficiently, it's easy to see why it's spreading so rapidly.

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Why virtualisation-ready matters

Even if you've not yet considered adopting virtualisation as part of your IT strategy therefore, it almost certainly won't be long before you do – which means that, to ensure that your power systems are future proof, they simply have to be virtualisation-ready.

In a virtualised environment, when a physical server is at risk of power failure it should be a simple matter to ensure that applications remain continuously available by migrating the virtual machines running on that physical server to another host server that's unaffected by the power problems. In the real world, however, things aren't always quite that easy.

Virtualisation software vendors like VMware, Microsoft and Citrix offer live migration products that allow virtual machines to be moved rapidly from one host server to another. However, none of these have built-in functionality for dealing with power outages. In addition, most come with their own command console, which means that technicians have to use one tool for virtualisation management and another for power management.

Safeguarding data during power failures can be challenging in virtualised environments and in the event of a power failure, it is necessary not only to shut down the physical servers but also the virtual machines running on those host servers. All of this must be done in the correct sequence, often under intense time pressure, so having to operate several different tools to achieve this isn't ideal.

The solution to addressing these challenges effectively is to use virtualisation-ready UPSs that are complemented by modern power management software. This software integrates closely with major virtualisation management products, which means that technicians can use a single console to view, monitor and administer not only their physical and virtual servers, but also their UPS installation and other power devices.

The best power management software allows users to create tailored business continuity plans that automatically respond to specific alarm conditions in a predefined manner, ensuring that the required operations are carried out in the correct sequence and that the risk of operator error is eliminated.

The best software can be configured to trigger the migration of virtual machines automatically from servers affected by power problems to unaffected servers elsewhere – even to servers in the cloud. This means that users of the applications running on the virtual machines won't even see a glitch, let alone suffer loss of service.

While it might be tempting to dismiss virtualisation and virtualisation-ready power protection as things that are relevant only for large IT installations, this would be a mistake.

Operators of small server rooms and network closets have just as much to gain from virtualisation, and UPSs designed for use in smaller applications – typically in the 5 kVA to 10 kVA range – are now available in future-proof and cost-effective virtualisation-ready versions accompanied by power management software with all of the features discussed. Don't settle for anything less! And remember, as Professor Wattson says: "Make sure you're ready for virtualisation!".

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