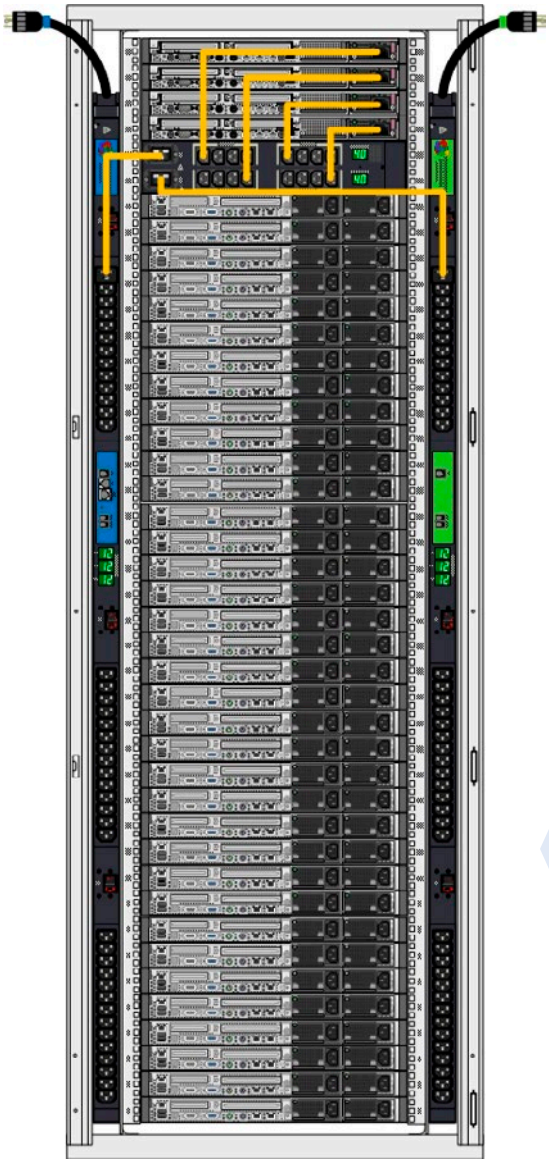
YOUR POWER STRATEGY EXPERTS

How can I add power redundancy to single-cord devices?

APPLICATION NOTE FSTS-001 | July 2014

Learn how to use Server Technology's Fail-Safe Transfer Switch (FSTS) to increase uptime of critical rack devices installed with one power supply.



Typical Application

My data center has Tier 3 redundant power supplied to all racks; however I have several racks where a few low-power pieces of equipment were specified with only one power supply. I need to maintain uptime at maximum even for these devices.

Our Solution

The FSTS model C-16HF2-C20 is used to supply redundant power to as many as 16 single-supply devices with a total draw up to 3.3kW @208VAC. By combining the FSTS with a Smart CDU pair, monitoring of total power usage through a network connection is possible. The server loads in this rack are well balanced between the three phases due to the unique in-feed sharing design of the FSTS.

Pictured left is the FSTS powered by a CS41CS-DCBA2S001 Master PDU, with blue color coding, and a CL41CS-DCBA2S001 Link PDU, with green color coding, using 3-phase 30A NEMA L15-30P inputs. Other input, output, and color options available. The yellow lines indicate the connections for providing redundant power paths.

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Improve Uptime with FSTS.

Managing your rack loads properly

The Server Technology Fail-Safe Transfer Switch is unique in that it includes power in-feed sharing where the "A" in-feed routinely powers half the outlets, and the "B" in-feed routinely powers the other half. If either in-feed goes down, only half of the load must be transferred. This "Fail-Safe" method has several advantages compared to a standard ATS. The Server Technology design does not prohibit load balancing between the two supplied circuits which results in less heat, lower voltage drop, and reduced relay wear when compared to the same load carried on just one source.

16HF1

16HF2

8HF2

Key FSTS Benefits:

> Transfer out-of-sync loads
> Arc-suppression with low EMI
> Local meters to maintain redundancy
> Built-in power distribution
> Brownout and over-voltage transfer
> Detects stability of sources
> Switches to best available source

Interested in learning more about Server Technology's FSTS solutions? Visit us online at:
www.servertech.com/products/build-your-own-pdu

Server Technology
Quality Rack Power Solutions

Stay Powered Be Supported Get Ahead

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