

Testing procedure

A testing process, methodology and algorithm to most accurately determine the Total Design Power rating of a computer server.

Future data center designs driven by future server designs

Server design methodology utilizing testing procedure to create servers and/or other computer related appliances (such as: computer storage machines; communication or storage networking machinery) with accurately specifiable power consumption profile. Such servers and storage models can then be used to design the next generation power optimized data centers using application centric data center modules.

Time line:

Day 1: Lopoco next generation proprietary motherboard and firmware designs for general purpose servers

Day 2: Lopoco server designs for specific or special application computing needs. Some examples: big data processing; image/video/audio search; speech recognition. Servers maybe optimized for use of general purpose processors, or GPUs, FPGAs, and ASICs.

Day 3: Design of Next Generation All Purpose Data center utilizing application-centric data center sub-modules comprised of ultra efficient servers designed for that application category; method for analyzing existing/running applications and migrating them to the appropriate sub-module of the NGAPD intended to most efficiently run them.

Day 4: Blade server design implementing variable load power supplies, preserving high efficiency levels regardless of load (population level of blade chassis).