

General comment: For some systems, common functions have been off-loaded to centralized devices that are not included as part of the test methodology. For example, centralized management systems or blade chassis fabric interconnect functions. In general, it would be impractical to include some element from these devices in the calculation for efficiency of the UUT because the centralized devices typically serve multiple units and the centralized function is often integrated with another independent device. However, the requirement to include an external, centralized device with an installation of the units under test should be disclosed along with the device efficiency report.

Specific change: Section 4.1.2 should include an additional item:

xii. A list of product IDs for centralized devices that were required by the UUT in order to function during the test process. Where multiple versions or a family of centralized devices may have been used, the partner may list any number of them.

Lines 17-19: Item c is ambiguous. Firstly, the term “node” is not clear. Is this intended to be CPU cores, sockets or some other instance? There are other uses of the term throughout the document, the terms “node;” “CPU core;” and “socket” should be defined in section D. Secondly, does the phrase “exempt from this requirement” mean that they are exempt from the ECC requirement (i.e. the multi-node system will be classified as a server whether or not it supports ECC) or does it mean that they are exempt from the requirements of the program (i.e. the multi-node system will not be classified as a server within this specification). The note starting on line 23 seems to argue that the ECC/buffered memory requirement is in some way controversial and therefore high-node-count servers should be exempt from that requirement (but not from the program). The technical basis for this is unclear. It is Cisco’s view that no exception should be made, however if the exception is required, then the paragraph should be reworded to make the intent clear.

Line 156: The definition for processor should also cover the terms “node;” “CPU core;” and “socket” as they are all used frequently in the document. Suggest changing item 4) as follows:

4) Processor: The logic circuitry that responds to and processes the basic instructions that drive a server. For purposes of this specification, the processor is the central processing unit (CPU) of the computer server. One or more CPUs may be instantiated in a physical package, where multiple CPUs share a package these are referred to as multi-core processors. The CPU package is installed on the server motherboard via a socket or direct solder attachment, if multiple packages are supported on the motherboard then the system is referred to a multiple socket system (whether the packages are inserted in sockets or soldered directly). The combination of a CPU core with attached memory and I/O hardware is referred to as a processor node.

Comment on the Test Method

Line 214: The preparation procedure for the blade system describes half and full loading, but this section makes no reference to chassis loading. If the intent was to derive actual blade server power usage, then change section I as follows:

I) When testing a Blade System, proceed as follows to derive single blade power:

1) Repeat the test with the system half loaded and fully loaded as described in section 6.2 B. Subtract the power recorded during the half-load test from the power recorded during the full-load test.

2) Divide the measured total power difference between the two tests by the difference in the number of blades installed during the two tests;

3) Record the per-blade power values for each measurement and the measured total power.

Alternatively, make the intent clear regarding the two test configurations described:

I) When testing a Blade System, proceed as follows to derive single blade power:

1) Using either the test with the system half loaded or the test with the system fully loaded as described in section 6.2 B.

2) Divide the measured total power by the number of blades installed during the two test;

3) Record the type of configuration tested, the number of blades used, the per-blade power values for each measurement and the measured total power.