

NetShelter CX Technical Guide

Noise Reduction Performance

What does the Netshelter CX achieve?

18.5 dBA broadband noise reduction, measured 1.0m / 39" in front of the cabinet, representing a 90% in perceived noise reduction.



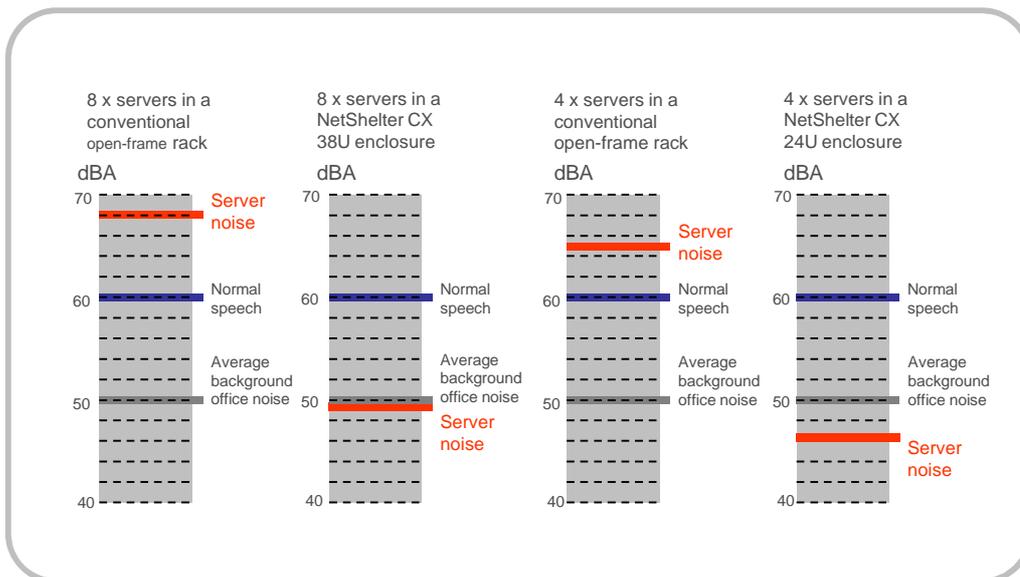
Practical acoustics explained.

The field of acoustics is not an area familiar to many IT managers and therefore the following guidelines are offered. "dBA" is the common measurement unit used to quantify Sound Pressure Level (SPL), which is technical terminology for "how loud things are". As usual with these things, there's no need for the end user to fully understand dBA. The things that matter are how many or how few of them there are, what kind they are (high or low frequency) and what that means in the real world. For reference, here are some widely-accepted examples of SPL ratings that are relevant when installing servers in the workplace:

- 45-50 dBA** Typical noise from fully integrated or cassette-type building air conditioning / portable air-con is 55 dBA+
- 50 dBA** Background noise in an average office, without speech / 55 dBA busy office / 60dBA with speech
- 62-68 dBA** Typical noise from 2-8 x low form factor servers with average CPU loads

The Netshelter CX's unique soundproofing.

In order for an installation to become unobtrusive in an office environment, the noise from the servers and other hardware in the installation must be reduced to the level of the general office background noise. At such reduced levels, the human brain perceives the noise from the servers as part of the overall background noise, and it will go unnoticed on a day-to-day basis, in much the same way that the hum from most built-in office air conditioning systems do. The below tables shows the results of using of NetShelter CX enclosures.



Summary

The soundproofing in the Netshelter CX makes it possible to place noisy IT equipment unobtrusively in the open office.



by Schneider Electric