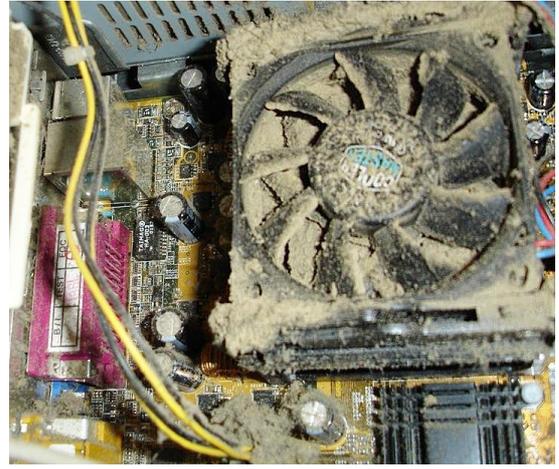


## Failing servers due to clogged air fans and filters

All of us know, with power hungry application, we are forced to use solutions that are reducing the heat in the computer housing. This can be done easily in an environment with air conditioning. However, not all applications can be installed in an air conditioned room. In this case, the easiest way is to cool the sensitive electronic parts with air flow. Despite fans are not too reliable, fan failures can be overcome with redundancy.

Now the immediate problem is solved, the electronic is cooled, but unfortunately not in the long run. The big disadvantage is that with forced air, all dust from the environment is sucked into the housing. In some places the environment air is cleaner than in others, but dust will always be present. The blown-in dust generally covers the complete electronics and insulates it. This can or better will cause, that the system stops its operation due to current leakage (depending on the dust content) or due to overheating. Precaution is to protect the air inlet with filter mats. But now, the generally maintenance free system suddenly requires preventative maintenance. The mats are forgotten to be replaced or replacement filter mats have not been ordered and maintenance therefore left of. Plus the fact, with filter you need more powerful fans.



## What is the alternative?

For solutions with up to 35 /40 Watt, the market offers fanless systems. Some better and some less worth, depending on the initial purchasing cost. However, as soon as you require Server Class Performance, fans are a must and nothing was available so far.

MPL AG Switzerland, one of the first producer of Rugged Fanless Embedded Computers introduces a fanless Compact Xeon Server Class System without the above mentioned disadvantages, and even for environments of -20°C to +60°C.



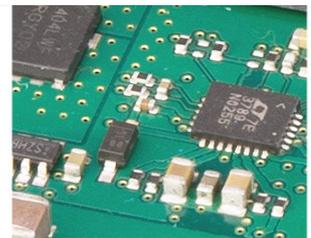
The Rugged Xeon Solution (MXCS) from MPL AG is available with up to 16 cores. For 19" rack solutions where eventually a hardware RAID or a GPGPU computing power is needed, MPL offers a sealed redundant forced air solution that will not blow air into the electronics compartment, but still efficiently cools the system. The used high quality fans are temperature and speed controlled and operate only when needed.

For more details or need of a test unit, you may get in touch with MPL AG

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with standard fan cooling



with MPL cooling concept