



ICEOTOPE™

Iceotope for Cloud Services

The race to the cloud - "software, infrastructure or compute as a service" - needs a level of availability and fault tolerance usually only found in bespoke telecommunication environments.

In most organisations this is achieved through delivering massive overcapacity of compute with multiple levels of redundancy throughout the entire data centre and ICT infrastructure.

Iceotope, by using automotive grade industrial design coupled with advanced fluid dynamics, brings Tier 4 ready fully redundant power and cooling systems at the rack level combined with improved mean time between failures (MTBF) for compute within a "hot swap" clean and dry module.

The Iceotope Solution is able to provide significant amounts of industry standard processing power, memory, storage and interconnect required by HPC environments. However, unlike many systems on the market today, this is closely coupled with 2N coolant and power to the cabinet, so it complies with Tier 3 and Tier 4 designs. Iceotope typically reduces the energy directly consumed by the IT load by 20% and ancillary cooling by 97%. It takes roughly 80 watts to harvest the heat from a single 20 kW cabinet, equivalent to 30Kw of legacy IT while enabling improvements in reliability and performance.

Available to purchase as two main components, the Iceotope Solution is comprised of the Iceotope Platform and Iceotope Modules. The 2N 47U cabinet can contain up to 48 of our "liquid cooled" compute modules, currently powered by Supermicro using AMD Opteron, Intel E5 CPU's and the new generation of GPU's from AMD. Each module can be specified with a full range of memory, storage and network options and include the latest 10 GbE / 40 Gb Infiniband. Each module will contain two CPU's, up to 256 GB of memory and up to 600 GB of SSD. PCIe3 is available to interconnect GPU and CPU modules.

Our system is silent in operation and does not need CRAC units, chillers, humidity control or air filtration so it can be located anywhere with access to power. This unique patented design isolates the system from facilities enabling a wide variety of heat recovery, passive or dry cooling options to be utilised.

Able to bring significant capital and operational benefits to IT, the Iceotope Solution also offers reduced consumption and predictability to energy managers as well as space and infrastructure savings to facilities.





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Inside the Iceotope Solution

