

Nominee: WHIPTAIL

Nomination title: Datacentre Hardware Product of the Year: WHIPTAIL INVICTA all-Flash storage array

Distinguishing features?

- Reduces storage hardware CapEx and OpEx where high performance is needed
Organisations increasingly require high performance for resource-intensive platforms such as virtual desktop infrastructure (VDI). Genuine high performance for an all-Flash storage array means higher IOPS, lower latency, and greater bandwidth (INVICTA achieves over 7.5GB/s). For every 100,000 WRITE IOPS, INVICTA eliminates the need to over-provision 500 hard disk drives (HDDs); at its optimum performance level, it removes 2,500-3,000 15K FC HDDs. INVICTA's energy consumption is 90 per cent lower than an average HDD's, the same wattage as an ordinary hairdryer. Organisations can reduce operational costs, from cooling and power to insurance and the space required to store hardware.
- Reduces need for dedicated devices for READ and WRITE requirements INVICTA achieves 580,000 IOPS, based on 100 per cent RANDOM and 50 per cent 4K WRITES and 50 per cent READS, negating organisations' typical need for two solutions to deliver optimum READ and WRITE performance by providing both in one product.
- Reduces need for dedicated devices for different workloads INVICTA processes incoming WRITE data before committing it to solid state disk, so it can adapt to different block sizes (4K for VDI, 8K for database, 64K for streamed media), negating the need to provision dedicated storage for each.
- Ease of management Logical unit number creation requires just one click and four bits of information; extensive storage optimisation training is not required. RACERUNNER is a sophisticated storage OS with a straightforward browser-based GUI that enables data to be replicated to non-WHIPTAIL arrays, increasing flexibility, security, and availability. RACERUNNER also adds VMware support for vStorage API for Array Integration and vCenter Server, enabling organisations to reduce CPU and memory use and storage fabric bandwidth consumption, and to redistribute processing power to other tasks.

Tangible impact on market and customers?

Worldwide demand for INVICTA has exceeded expectations since its launch in May 2012. Customers include SNR Denton, an international law firm. The majority of projects support large VDI rollouts, with one customer supporting over 15,000 seats on INVICTA. One major vendor (EMC) has announced its intention to provide a similar solution, but the uniqueness of INVICTA's modular scale-out solution continues to give WHIPTAIL market advantage.

Major differentiators from competitors?

INVICTA handles WRITES differently to ensure maximum performance, turning random writes into sequential writes to prevent the disk performing unnecessary re-writes. The Block Translation Layer, and added protection for 'in flight' data in the event of a power failure, is critical in environments such as banking where fractions of seconds can translate into gigabytes of data and substantial sums

of money in time-sensitive transactions. Additional hardware to enhance array performance is built in to INVICTA. No alteration is required during usage: the product can be configured to an organisations' requirements before going live, negating the risk of corrupting data. Unlike competitors' products, INVICTA provides the RAID protection and hot-swappable disks that users are familiar with. RAID is across all 24 SSDs in the array, in a single storage services node. Drives are pluggable from the front of the array, bringing a key benefit of HDDs to Flash storage without the drawbacks. Whereas many NAND storage products have very short lifespans, INVICTA is built for labour-intensive use. Offering guaranteed seven and a half years' endurance on the SSD NAND Drives, INVICTA includes a complete investment protection plan with 24/7 customer support and staff technical training. INVICTA is also distinctive in the way it is sold to market, particularly in EMEA. WHIPTAIL's network of more than 50 partners, value-added resellers, and distributors choose INVICTA because it enables them to add significant value to virtualisation projects by providing increased performance at an attractive price point.

Supportive quotes/ case study materials?

- SNR Denton SNR Denton, an international law firm, deployed a 72TB INVICTA array, modularised across several global locations (including the UK and the US), to power Windows 7 on XenDesktop VDI. "We could see almost right away that traditional storage offerings had nothing to offer that could meet our storage performance requirements at a rational price point and with a reasonable data centre footprint," said Mike Barnas, Global IT Director at SNR Denton. "The WHIPTAIL team had an incredible experience level with XenDesktop that no other vendor could match." SNR Denton was able to make potentially hugely disruptive events like the NATO conference in Chicago and the London Olympics practically irrelevant to their daily operations: "Employees have full work-at-home access with no delays to our messaging and productivity software, and, most importantly, to our document management system," said Scott Smithberger, Lead Global Citrix Architect. "We've also seen benefits in terms of lower training and support costs that would not have been possible if WHIPTAIL didn't perform beyond our expectations."

- St Wilfrid's Catholic High School and Sixth Form College, Wakefield Teachers complained to ICT Manager Chris Slater that they wasted up to 30 minutes per lesson waiting for the whole class to log on. Reluctant to commit to the recurring cost and inconvenience of replacing or upgrading classroom hardware, Slater deployed a VMware view VDI powered by a WHIPTAIL array: "We currently have 60 virtual machines, but we plan to increase this to 600. VDI also lets us keep 60 desktops that would otherwise be nearing the end of their life this academic year – and there will be plenty more in the future. The storage product we use needs to offer the right blend of speed, capacity, and scalability. When evaluating suppliers, we found that many sacrificed too much speed by providing broader functionality: we would be adding boxes every year, taking the long-term cost of ownership way beyond our budget. WHIPTAIL was the only logical choice. Class log-on time is down to only four minutes, and virtual PCs are much easier to support, as we can resolve issues remotely without disrupting students' work. And we are saving time and money by not having to replace the old classroom hardware."

Why nominee should win

- WHIPTAIL INVICTA reduces the total cost of ownership of organisations' storage. The aggregation of random writes into sequential writes solves the lifecycle issues typically associated with Flash storage and solid-state disks by reducing the number of unnecessary re-writes.
- WHIPTAIL INVICTA is an example of a young start-up leading the way in a changing industry and showing big-name players where customer needs and market offerings are going
- WHIPTAIL INVICTA has delivered tangible and measurable ROI for customers, helping them to extract the most from their IT systems and work more efficiently