

Infinio Accelerator

Lightning fast I/O for any storage.

Infinio Accelerator is server-side cache that delivers 1 million IOPS per VMware host, 80 µs latency, and installs in minutes.

Infinio Accelerator is built on the fundamental principle that when frequently accessed data is co-located with applications in the server, performance is several orders of magnitude better than relying on lengthy round-trips to and from even the highest performing network-based storage. Historically, the only option for achieving such speeds was using server-side resources such as SSDs or PCIe flash as silos of high performance storage capacity. This approach, however, comes at substantial expense: these silos require separate configuration and maintenance, and redundant data protection and reporting policies.

In contrast, Infinio's smart, content-based cache inserts server RAM, SSDs, and PCIe and NVMe flash transparently into the existing I/O stream to accelerate storage, while retaining familiar arrays and architecture. Infinio's cache dynamically populates servers-side media with the hottest data, reducing the storage requirement to a small fraction of the workload size. Through VMware's Storage Policy Based Management, Infinio's acceleration can be applied to VMs or groups of VMs transparently, while centralized storage continues to provide data protection and management.

The introduction of Infinio begins to provide value immediately after a nondisruptive, 15-minute installation that doesn't even require hosts to be put into maintenance mode. To get started, all that is required is a small amount of RAM in each ESX host; complementary server-side SSDs or flash is entirely optional.

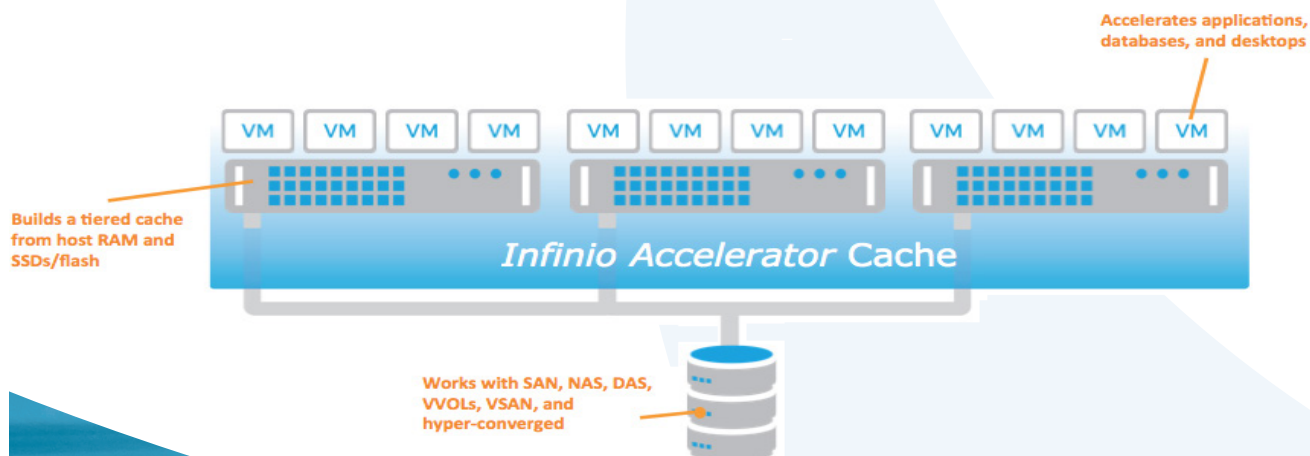
Infinio's performance benefits provide flexibility in how new storage is purchased. With Infinio delivering performance, organizations can dramatically reduce their cost/GB by choosing high-density platforms optimized for capacity. For unprecedented IOPS and latency, Infinio can be paired with an all-flash array.

WHY INFINIO

- 15-minute installation**
 Non-disruptive installation with no reboots or maintenance mode required, and no changes to storage or applications
- Industry-leading performance**
 See 1,000,000 IOPS per ESX host, and latencies as low as 80 microseconds
- VMware Ready certification**
 Complete integration with VMware's Storage-Based Policy Management, VAAI, VSAN, VVols, and other VMware APIs

BENEFITS

- 20X latency improvement
- 10X throughput improvement
- Lowest cost for performance (\$/IOPS), and capacity (\$/GB)



Accelerate Databases and Applications

Databases are at the core of most organizations' infrastructure. Whether they are used for CRM, ERP, document management, code repository, or any other business process, the performance of databases is central to an organization's ability to meet its business needs. While hardware infrastructure for databases is often sized to accommodate steady-state operations, both reporting activities and peak loads can pose a challenge to storage performance.

In particular, the storage I/O requirements for database reporting can be vastly different from that of the transactional activities of databases. In a virtualized environment, the impact of this can be magnified, as the "I/O blender effect" can further tax storage systems and reduce the dedicated resources for reporting.

Infinio Accelerator can improve database performance for both transactional and reporting activities. By leveraging server-side resources for storage operations, Infinio can deliver IOPS at a microsecond response time, improving database performance by minutes or even hours.

Infinio's software is simple to evaluate, implement, and use. With a 30-minute non-disruptive installation that requires no special familiarity with storage, virtualization and database administrators can quickly evaluate whether Infinio can improve their database performance. Once installed, Infinio makes no changes to storage or database architecture, enabling administrators to continue using their familiar reporting, monitoring, and management tools.

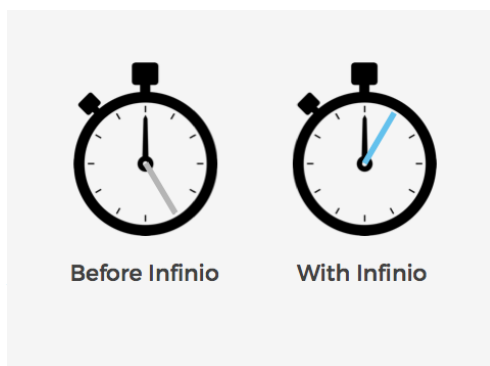
With faster database operations, organizations can process data, see trends, and make decisions faster, freeing up valuable IT professionals' time and better serving their business stakeholders.

Hear from our customers:

Canadian City Government

Oracle and Microsoft SQL running on Cisco UCS blades with IBM SVC storage, reports taking 4-8 hours.

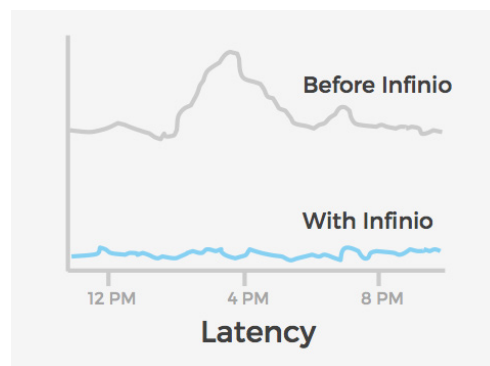
"The time needed to run reports has diminished from five to two hours. We're saving up to 20 hours of database report processing time per week, and our system is able to tackle other priority operations."



MIBS, a subsidiary of Mitsubishi

Oracle and Microsoft SQL databases experienced spikes at 4 p.m., during end-of-day financial market report generation.

"Infinio prevents I/O bottlenecks from happening. We now have a more consistent user experience, fewer support cases logged and a more stabilized platform for all users."



Faster Virtual Desktops

Virtual desktops have long been acclaimed for their security, ease of management, and ability to control the user experience. Numerous organizations across education, finance, government, and healthcare have sought out VDI to achieve these goals, and many have done so with success. However, storage performance can be the culprit that prevents organizations from fully reaping the benefits of VDI; storage is often under-sized, leading to dead-end pilots or costly upgrades.

One of the most common causes of storage latency in virtual desktops is the coordinated events that occur across desktops at a certain time of day – such as booting, logging in, virus scans, desktop backups, and software upgrades.

Infinio Accelerator can improve performance for these activities, as well as for steady-state response time. By leveraging server-side RAM and flash for storage operations, Infinio can deliver IOPS at a microsecond response time, improving the VDI user experience significantly. User adoption can increase without additional investment in costly hardware.

Infinio's software is simple to evaluate, implement, and use. With a 30-minute non-disruptive installation that requires no special familiarity with storage, virtualization architects can quickly evaluate whether Infinio can improve the experience of their endusers. Once installed, Infinio makes no changes to storage architecture, enabling administrators to continue using their familiar reporting, monitoring, and management tools.

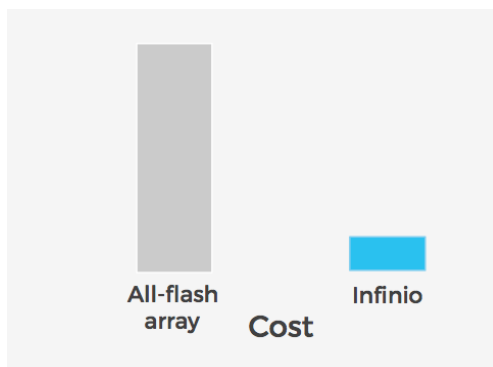
A better virtual desktop experience means a user population who is more efficient and less frustrated. With a VDI environment that works as is intended, organizations can fully realize the benefits of security, management, and speed the promise of which encouraged them to explore VDI initially.

Hear from our customers:

Masergy

Stalled Horizon Enterprise Suite deployment because of poor interactive performance and expensive proposals to solve it

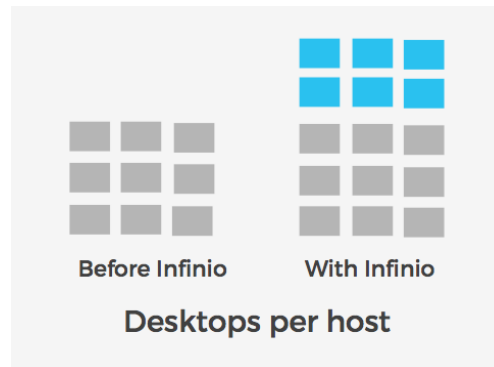
“I estimate we avoided a \$120,000 - \$150,000 all-flash array purchase by choosing Infinio instead.”



OrthoTennessee

Overhead maintenance and upgrades for previous VDI acceleration technology were unmanageable and costly.

“We can add 60 additional desktops to the environment without buying any new hardware.”



How does Infinio work?

Infinio is deployed as a VMware Installation Bundle (VIB), which installs an I/O filter. This installation process can be completed in under 15 minutes without any disruption or reboots. The I/O filter is applied to selected VMs or groups of VMs using VMware's Storage-Based Policy Management engine, and the UI makes it simple to filter by cluster and search by name to identify the VMs you'd like to accelerate. Infinio's cache is created from RAM, SSD, and flash resources located on the ESXi hosts. The software's unique content-based architecture provides deduplication of the cache, creating an effective cache size that can be many times larger than the allocated physical resources.

All of the Accelerators in an Infinio cluster are managed together, and seamlessly support typical cluster-wide VMware operations, such as vMotion, HA, and DRS. Advanced reporting lets you see aggregate performance improvements, as well as drill down on individual VMs for performance analytics at one-minute intervals. Best of all, using Infinio doesn't require you to make any changes to your environment. Your datastore configuration, snapshot and replication setup, backup scripts, and integration with VMware features like VAAI and vMotion all stay the same.

Increase performance for any application

- Reduce reporting times for databases, big-data, and analytics applications
- Improve boot times and responsiveness for virtual desktops
- Increase virtual machine density per host without compromising performance

System requirements

Hypervisor

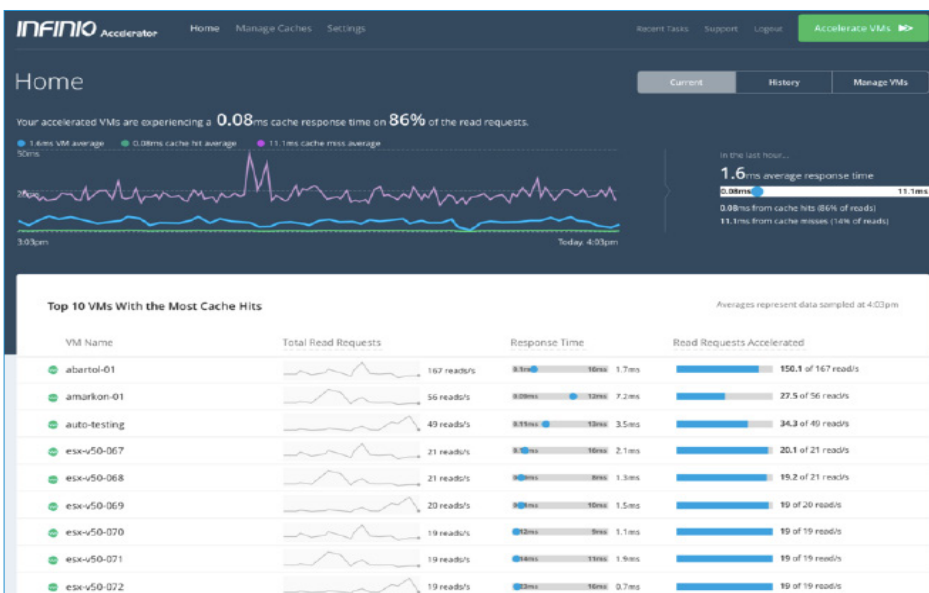
- Infinio Accelerator with VAIO integration requires VMware vSphere ESXi 6 patch 3 (Standard, Enterprise, or Enterprise Plus) and VMware vCenter 6 U2.

Server-side resources

- Memory: 8GB RAM or greater, up to 1TB/host
- Flash (optional): Enterprise SSDs, PCIe, and NVME devices on the VMware HCL, from 12GB up to 8TB/host

Storage

- Infinio Accelerator works with any VMware supported datastore, including a variety of SAN, NAS, and DAS hardware supporting VMFS, NFS, Virtual Volumes (VVol), and Virtual SAN (VSAN).



The Infinio Accelerator console provides a clear view of performance benefits, including aggregate latency and VM-level statistics.

