

We'd like to introduce you to CASTor, the next generation of fixed content software. In the medical imaging business, storage can be a competitive advantage. You need something that is affordable, scalable and something that provides a way to guarantee the integrity of your fixed content for tens of years. CASTor can be your competitive advantage.

simplicity
performance
hardware agnostic
data integrity
scalability



CASTor™

Introducing Caringo.

Fixed content storage for the 21st century.

CASTor was designed by the original inventor of CAS (Content Addressed Storage). Paul Carpentier sold his company, FilePool, to EMC in 2001 and that product became Centera - the fastest growing product in EMC's history.

Paul has moved on to create the next generation of fixed content storage software. It's faster, more scalable and it runs on commodity hardware. This means that you as a vendor can choose to resell the storage hardware or not. If your customer prefers to supply their own hardware, fine. If you choose to provide the hardware, that's fine as well. The key is that now there is a choice and that choice is the most affordable, high performance and seamlessly scalable choice in the market. Combine that affordability with easy integration and future proof integrity and you can produce an application that is state-of-the-art yet more affordable than your competitors.

CAStōr



CAStōr is Hardware Agnostic

To compensate for design complexity, most scalable storage systems must use specialized hardware: complex and expensive. But the commodity PC hardware market offers a different dynamic. Competition produces ever faster hardware at ever lower prices. The winner of this competition is the user.

Why not put this dynamic to work for your storage? With Caringo software you win the price/performance race because we run on any server or PC hardware you choose. Commodity hardware means lower total cost of ownership (TCO), shorter learning curves, more flexibility and upgrades at your convenience, not the vendor's.

Single-tier Simplicity

Multi-tiered storage exists because it's too expensive to store everything on fast, online disk. Historically, some information has been archived - that is, stored in a near-line or offline medium. But that means you have to decide what to archive and decide where it should reside. When you need access to that information, finding it, getting to it and integrating it into your applications can become time consuming and expensive.

It gets worse. An entire industry has grown up to help move information from real-time to near-line to archive. It's called Information Lifecycle Management and it's big and complex, hence unwieldy and expensive.

CAStōr stores, retrieves and protects all your reference information on a fast-access, scalable single tier of storage. No multi-tier, no near-line, no offline; and it's better and less expensive than tape. We call this real-time reference information. It's simple, it's dramatically less expensive and it works.

An Easier Interface

Most CAS products use complex APIs to interface to applications. Each API is unique and requires training, writing, debugging and maintenance. Applications are not portable and each new OS or hardware platform requires separate porting and testing, driving up costs dramatically. Some use hierarchical file systems like CIFS or NFS, which bring you the worst of both worlds by denying the referencing superiority of CAS and being slower and more expensive than NAS. CAStōr uses a simple HTTP 1.1 subset as an interface. It's instantly usable by any platform from cell phone to mainframe. No individual APIs or client code needed. The results: nothing new to learn or maintain; just portable applications using a streamlined protocol.

Zero File System

Current file systems are 30 years old and were designed for entirely different tasks than they are being asked to perform today. Caringo's Zero File System (ZFS) simplifies and strengthens fixed content storage. There are no layered and complex

file systems to threaten robustness and slow down performance. A Caringo system reads and writes close to the speed of the hardware. ZFS is a key element of CAStōr, Caringo's next-generation Content Addressed Storage (CAS) implementation by the original inventor of CAS, Paul Carpenter.

CAStōr creates a single tier, flat address space without file or folder hierarchies. Each object gets a unique ID which identifies it to CAStōr throughout its lifetime. Unlike other CAS architectures, this identifier is not vulnerable to hash attacks and thus is suitable for extremely long term storage. Designed for the 21st century and beyond, CAStōr makes information location independent and instantly accessible.

Information Integrity

Current CAS implementations use a hashing algorithm to guarantee the integrity of information stored. Unfortunately, all hashing algorithms tend to become "breakable" as time progresses and computer power increases. For example, the popular MD5 algorithm has been successfully attacked, rendering it unsuitable for secure applications, thus downgrading the integrity of any information stored in any CAS systems using it. Caringo's patent pending Content Integrity Seal guarantees information integrity with the only real-time upgradeable hash available. When desired, upgrading to a stronger hash can occur dynamically and transparently, without ever jeopardizing stored content or changing unique identifiers. With Caringo's Content Integrity Seal, your information's integrity is assured for true long term storage.

Massive Scalability

The need for storage grows faster than ever these days. Caringo lets you size your fixed content storage pool as you go. Start with a small CAStōr system and take advantage of the lowest cost of entry available. Add capacity as needed. No downtime or migration is required. When you add capacity, you can use the hardware of your choice. New and old technology can coexist. You can develop and test with the smallest possible system and as you roll into production, add additional memory, disk and nodes as needed. You can even merge the reference information storage for departments or companies by just hooking up the networks of their CAStōr clusters. No configuration, administration or other intervention required.

CAStōr means more than great performance, scalable information integrity, ease of maintenance, massively scalable commodity hardware and single-tier storage. It means storing information at per gigabyte prices that are so low you may re-think how you manage all your reference information assets.

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