



Seeing the World Through Tiered-Storage Eyes — EMC Expands CLARiiON's Range

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EMC Delivers More Than Meets The Eye

The headline news is that EMC has expanded the range of its *CLARiiON* midrange storage arrays, but there is a subtext that hints at something more. First, the facts: **EMC has pushed the CLARiiON line both up- and down-range.** The powerful *CX600* arguably reaches into the high end by delivering very high performance, 18 TB of capacity, and a broad suite of value-enhancing software in one array. The new entry-level *CX200* delivers around 15% of the performance and capacity of its elder sibling at a fraction of the cost. Though software and host support are not as broad, it supports full SAN connectivity. In the middle lies the *CX400*, striking a balance between the *CX200* and *CX600* but with the full suite of software and host support. Each touches a unique point on the spectrum of performance, availability, scalability, and cost.

Traditionally, the market looks at a product line like CLARiiON in terms of different products for different customers. Customers have different requirements, whether they are individual enterprises or different departments and locations within the same enterprise. For instance, a small business running several Windows applications with a total of 300 GB of capacity might want to consolidate storage on a SAN with the *CLARiiON CX200*. It would be the “right-sized” solution. The *CX200* might also work for a remote office or department of a large enterprise, while the *CLARiiON CX600* or even *Symmetrix* would be the best fit for the mission-critical requirements of the data center.

But storage is on the cusp of a trend that will shake up everything. No longer will we see the storage spectrum in terms of “one product for one customer”. Rather, it will be “many products for one customer”. Or more specifically: “multiple storage devices for your enterprise”. **This is the world of tiered storage classes, where enterprises deploy multiple classes of storage with different qualities of service (QoS).** The fact is that not all applications require the same levels of storage performance, availability, and cost. Moreover, not all data for any given application requires the same QoS. Some requires the highest QoS, others do not, and this changes over time. **Tiered storage is a more granular, precise approach to storage provisioning, and it presumes more than one kind of storage.**

Optimizing Storage Budgets

Why the change? The driver is economics. **Tiered storage is a way to optimize storage expenditures.** In this Information Age, data accumulates at a rapid pace. As the cost to store and manage it also rises, enterprises are looking for levers of efficiency to pull. **By making intelligent distinctions between classes of information and storage, enterprises can lower overall storage acquisition costs and drive greater efficiency into the storage infrastructure.**

It is not a one-time benefit, either, because **savings accrue every time capacity is purchased in the future.**¹

You need to do two things to make this happen. **The first is simple, centralized, heterogeneous storage management.** It would be too burdensome to deploy many different, even multi-vendor storage devices without the help of added software intelligence to manage it all. **The second is the ability to automatically *classify* records and files according to their importance and *move* them to the appropriate class of storage.** Again, smart software is the key, and this category is sometimes called lifecycle data management. **While there is a solid benefit to tiering storage at the application level, the ability to drill down to specific records and files magnifies the effect.**

Moving Toward Tiered Storage

The careful observer will see that EMC is moving in the direction of tiered storage classes. It is largely there on the hardware front. With Symmetrix at the high end, CLARiiON spanning all points of the midrange, and *Centera* at the low end of price/performance for online archival, there is an EMC solution for multiple tiers of storage. EMC is also progressing on the software side. Its unfolding *AutoIS* initiative offers automated, open storage management.² *Centera* hooks into third-party archival software. EMC's *EDM* centralized backup solution has been enhanced. Finally, EMC is publicly hinting about a more integrated solution for lifecycle data management. **Put it all together, and it spells *tiered storage*.**

Conclusion

Smart enterprises will start to see the world through tiered-storage eyes. The financial value is there, and it is becoming more practical to implement with the development of software for heterogeneous storage management and lifecycle data management. **So you can look at the revised CLARiiON line for what it plainly is – midrange storage solutions for particular customers. Or you can take a forward-looking perspective and see it for what it can and will be – several key tiers in a spectrum of tiered storage classes.**



¹ For a more detailed discussion about tiered storage classes, see *Tiered Storage Classes Save Money – Getting The Most Out Of Your Storage Infrastructure* in **The Clipper Group Explorer** dated August 29, 2002, at <http://www.clipper.com/publications.htm>.

² See *EMC Pulls Forward in Automated, Open Storage Management* in **The Clipper Group Navigator** dated October 3, 2002, at <http://www.clipper.com/publications.htm>.

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