

Seeing through the storage smokescreen

Ask the right questions when assessing a potential storage system and you could save thousands, says Pillar's VP of EMEA, Pat Clarke

Storage, like many other sectors, has been guilty of over-complicating its products to add perceived value. The technology market is well known for forcibly shortened product lifecycles through hard-coded expiration dates and the ever-decreasing time between innovation and obsolescence.

A closed shop for far too long, it's time the key players in storage gave something back. Using the following set of questions, those with a need for storage technology should be able to get a clearer picture of the common pitfalls that are often overlooked during the buying process. They offer IT managers and directors a way to gain a clearer understanding of the total cost of their investment, and provide some interesting starting points for planning a storage project.

Be warned, however. Some of these questions could get a mixed response from storage vendors. Many of the questions ask about specific, and sometimes hidden, additional costs. They are designed to ensure an initially attractive deal doesn't turn into just another IT project where costs spiral out of control.

12 QUESTIONS TO ASK A STORAGE VENDOR WHEN THINKING ABOUT A STORAGE IMPLEMENTATION

- 1 What would be the cost of double and triple the proposed storage capacity?** Your storage requirements will grow with your business and changes in regulations. The initial capacity may see you well into the future, but at some point this will have to expand. Be sure to gain an idea of what larger systems will cost at the outset to make sure your budget is future-proof and that your system can scale to cope with substantial planned and unplanned growth.
- 2 Can you split out the hardware, software, implementation and maintenance costs of your storage project?** The hidden costs can be much more significant than expected, and these are also likely to recur annually. By splitting the budget into separate areas, it is much easier to spot where costs could spiral.
- 3 Can I have a single storage solution for applications and fileserving?** Many systems need separate space, one for Storage Area Network (SAN) technology and one for Network-Attached Storage (NAS) devices. This can increase the total cost of ownership in the short and long term. However, combined NAS and SAN systems do exist, ask what you will need before it's too late.
- 4 I have different tiers of data, how many separate enclosures of storage do I need?** Tiering data based on performance, accessibility and importance makes sense. Some vendors store different types of data in separate physical storage enclosures; in order to keep performance levels up for high priority data. There is no reason for this. One system can host all data types without compromising performance.

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- 5 What software isn't included in the standard price of the hardware?** Additional software, such as management software, snapshots and other utilities, will add to the initial purchase cost. Make sure you know what is included and have budgeted for what doesn't come as part of the storage package.
- 6 What single points of failure are there in the basic system, and what add-ons would I need to eliminate them?** Some vendors require you to add clustering software and separate hardware in order to remove possible points of failure. Ensure you fully investigate weaknesses through a detailed plan of the proposed system.
- 7 What is the maximum storage utilisation you can expect?** – Real storage costs must take into account drive utilisation, and over-provisioning. Understanding how disc space is allocated and how much is left unused is essential in understanding the capacity of the system and how wastage influences the increasing costs of an evolving storage system.
- 8 Will the system allow me to store high-performance and archive data efficiently?** Most systems treat all data as equal. This typically means that storing different tiers of data on one system causes lower priority data or archive data to impact the performance of the high priority data. However, the alternative of separate enclosures for different tiers of data can mean multiple points of management and multiple associated costs. Ensure that your storage vendor can offer a solution where all your tiers of data can co-exist in a single system without a negative impact on cost and performance.
- 9 What is the first capacity point above my requirements, and where will I need to pay for more software licences?** Additional hardware often means additional software fees. Working out the moment at which your system will need to be expanded should also shed light on where additional costs might hit you without prior warning.
- 10 What is the annual maintenance cost for the software and hardware, and how much would this increase by if I doubled my storage capacity?** In the longer term, maintenance will become a significant part of the total cost of ownership. Obtain a clear break down of ongoing maintenance costs for the system; ask how much they're likely to increase by to ensure a total cost of ownership for the lifetime of the system is provided. Ask for fixed costs beyond the three-year mark.
- 11 Can I service the storage myself?** Enterprise storage has traditionally been difficult to maintain or repair by an in-house IT team, meaning expensive engineers and support contracts will be needed. It is important to understand to what extent the vendor allows you to choose whether you can service the hardware, or if it can be outsourced to a preferred partner.
- 12 How long does it take to recover from a drive failure?** Drive re-builds must take the minimum possible time, without impacting application performance. Every minute that a re-build continues, places your data at risk, rebuilds should be measured in hours not days.

Pinning a salesman down to simple, clear facts and figures, for a solution that has a lifespan of several years can be very difficult. These questions are intended to help a prospective buyer gain an insight into the total cost of a proposed storage system and provide a view of the long-term financial commitment, so they know exactly what they are entering into.

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