

Who Goes to Jail?

by Andy Mulholland - Global CTO, Capgemini Group - Monday, 6 September 2004.

The CIO has been living with the apparently unstoppable demand for more storage for quite a while, really since the Internet/ World Wide Web introduced a whole new concept of 'content'. Recently American CEOs and CFOs have started to show an interest in this previously boring IT technology subject and it's discussed in quiet intense whispers. Put simply its called the 'Who goes to jail?' question, and its tied up with the focus on corporate governance following the Enron and other scandals that have led to the Sarbanes - Oxley act. Not having kept, or being able to access, the right information at the right time is now a serious offence that puts the CEO and/or the CFO in jail for perjury, regardless of who in the organisation may or may not have been to blame. Rising costs for storage of the increasing amount of data suddenly seem to be acceptable, even justifiable, a somewhat different situation from the vexed discussions that have characterised CIOs requests to spend more money on storage over recent years. Storage technology has changed too so even before thinking about the executive and corporate business problem there is a lot of technology change for the CIO to consider.

Industry specialists have been warning for some years that the amount of data being produced by the increasing use of IT is logarithmically increasing, and that serious management attention is required. As IT has moved from being used in selective areas of business to becoming a general tool in all areas of a business this increase in the production of data is understandable. The need for more efficiency in straight forward storage is clear enough, but this is only the most obvious part of the changes required. In the first three months of 2003, during a time of economic and budget cut backs, according to IDC, globally organisations increased their storage capacity by buying an additional 175.6 Petra bytes of storage space. This equates to an extra 49% of capacity, mostly bought without any strategic justification, purely a cost within the IT budget based on current 'needs'. The suppliers of storage products, the IT industry and CIOs cannot continue just to provision more 'space'.

After more than thirty years of Direct Attached Storage, or DAS, being at first the only, and latterly the leading way of storing data, relatively quickly over the last five years of new purchases Network based storage has taken over as the dominate form. Though there is competition as to whether this should be achieved using Storage Area Networks, SANs, the leading technique, or Network Attached Storage, NAS, the shift is clear, and follows a distinctive change in the way that IT is supporting business by using Networked Devices. SAN storage is architecturally attuned to, and deployed as, a part of three layer, or 'N' tier, solutions built with Application Servers. It is the accelerating change to building solutions in this manner, for the many benefits that it provides, that accounts for the switchover in sales from application centric DAS, to process centric SAN.

Though SAN software is the hot topic for solving the requirements it is still at 30% of the spend less than the 45% of the budget spent on some form, or other, of data protection. This covers everything from security to back ups, disaster recovery to archiving, etc, whilst the remainder goes on replication management software. The traditional storage

market lies in how to use new technology products to tie these three areas together to provide an overall reduction in operating cost with a corresponding increase in flexibility. The CIO is, as ever, faced with the budget and performance driven question of 'how to do more for less' whilst facing a entire technology driven change in the provisioning of IT solutions. As 'processes' delivered via Application Servers become more numerous, and the move towards Services Orientated Architecture gains momentum, the range of data types being produced is increasing, conversely the demand to use any, and all, data types, as and when, required in any, and all, processes.

The data storage market has expanded to include a wide range of technologies generically known as ECM, Enterprise Content Management. Comprising of the technologies for the capture, management, preservation, and delivery of data in a variety of forms to support business processes. ECM, and ILM, has become important due to the wave of legislation in all major markets emphasising the need to keep and use information in respect of legal requirements. Whether financial, as in the Sarbanes-Oxley act, or recording who and how of personal data use for the data protection act, it boils down to moving from storage of data from applications outputs, a comparatively 'unstructured' approach to a 'structured' approach where data is seen in context to processes and therefore can be defined as 'information'. Content merely opens up the term to include multi-media aspects being able to be indexed and used irrespective of the format as contextual data. Thus as the business becomes more reliant on technology, using more and more forms of content to suit the business requirements so the complexity of the CIOs job in understanding how to handle the results becomes more complicated.

The CEO and CFO are not too concerned with these complexities, but they have to be very concerned with being personally concerned with the results. Sarbanes-Oxley, as an example, makes it very clear as to their duties in making sure that the three key elements, sections 302, 404 and 409, are adhered to. If not, then the act makes it very clear that they face going to prison as the punishment for failure, and they cannot escape the punishment by attempting to place the blame on others, including their CIO! Under this state of affairs can you, would you, leave the topic of data capture, indexing and storage to your CIO alone? Actually you are not allowed to as the Auditors have a duty to check that data and processes are in accordance with the act, and qualify the accounts accordingly. Against such a challenging background of technology, business and legislation change, CxO executives are finding the previously boring topic of storage worthy of careful study.

Capgemini Group are exhibiting at [Storage Expo](#), the UK's largest and most important event dedicated to data storage that is being held in London from 13 - 14 October 2004.