Analysts' Perspective

Mukul Krishna

is responsible for the digital media practice at Frost & Sullivan. He has written extensively on the enterprise content management, digital asset management, video server, video streaming and encoding services, and interactive kiosk markets. He has also led consulting projects in these fields for key clients, has spoken at various speaking engagements on his area of expertise and is widely quoted in the press including major publications such as *Forbes* and the *Washington Post*. Mr Krishna is also on the Editorial Board of the *Journal of Digital Asset Management* and has been recently been nominated to be a Fellow at the Royal Society for Arts, Manufactures and Commerce in London, UK.

INTRODUCTION

The digital asset management (DAM) market is a value chain of product suites with logger software at one end, DAM software as the core, and digital delivery software and services at the other end. Products that fall within the scope of the DAM space are used in the management of digital content which includes various file types including audio, video, graphics, text, and more. Complete DAM product suites are client/server applications that enable the archiving, indexing, search retrieval, ingest, browsing, annotation, repurposing, collaboration, display, and transport of digital media. This is primarily enabled through different forms of metadata capture.

Digital asset management revenues nearly tripled between 1996 and 2000, however, market revenue growth rates slowed down significantly from the second half of 2001 across all segments. The main reason for this was the general economic slowdown and the aftereffects on the economy of the terrorist attacks of 11 September, 2001. Many DAM companies are privately held and these organizations have felt the pinch of scarce cash and have cut budgets. Despite this, the latter half of 2003 has shown that the market is not only poised for recovery but is expected to see some very healthy growth going forward over the forecast period.

Though the logger segment and the core DAM solutions market grew in 2003, the delivery market continued to show a downturn. This can be accounted for by the way the DAM market has continued to evolve. As applications for DAM have continued to gain traction in the corporate horizontal, the revenues have correspondingly increased. At the same time,

media and entertainment companies have shied away from major investment and many players in the delivery space have had to go through restructuring. This has hurt the delivery segment in the short term, but as broadcasters slowly move towards digitized broadcast and distribution, and digital cinema gains more popularity, the delivery segment is expected to pick up as well.

This market has tremendous potential. As digital media applications are spreading across verticals the demand for DAM solutions is also increasing. What was once a niche product aimed at specialty vertical markets such as broadcasting, entertainment, and advertising is rapidly moving into the mainstream as organizations realize the need to organize, and manage their growing portfolio of digital assets. Global 2000 companies are moving towards widespread deployment of DAM solutions in order to minimize cost of lost assets and lost time searching for those assets. Other verticals such as healthcare and the mobile wireless markets are expected to follow suit soon. The overall outlook for this market is very bright.

COMPETITIVE ANALYSIS

Through 2003, the DAM market was very fragmented. This phenomenon is changing with increased consolidation across the value chain. Most companies are still niche players trying to capture market share from others. In most segments of the market no one player has a sizable portion of the market. In 2001–2002 many players, such as Ascential Software, exited the market, while 2003 has been characterized by widespread consolidation among companies such as Documentum's acquisition of Bulldog and

Mukul Krishna
Frost and Sullivan,
75510 1h-10 West,
Suite 400,
San Antonio, TX 78229, USA
Tel: +1 210 247 3850
Fax: +1 210 348 1003
Email: mkrishna@frost.com

then EMC's acquisition of Documentum, Savvis's acquisition of Wam!Net, Interwoven's acquisition of Mediabin, Stellent's acquisition of Ancept, Avid's acquisition of NXN, Autonomy's acquisition of Virage, and INSCI's acquisition of Webware. The product offerings in the market are predominantly high-end with increasingly few vendors trying to compete at low-end prices. End-users have become much more savvy about their needs and have forced the market participants to form strategic partnerships and come to the table with collaborative bids.

TECHNOLOGIES

The economic downturn that the market has suffered since 2000 has caused a reduction in research and development budgets at many DAM companies. Consequently, 2003 showed the introduction of fewer technological advancements. Advancements were made in further refinements in metadata capture and in types of metadata captured. Software architecture became more open to allow full integration with other systems as well as modular in structure. Data compression was also refined to allow greater amounts of information to be transported faster across networks.

Web services

Many players are moving towards supporting a web services architecture. This enables asset management solutions to interact with other web-based applications on the back-end server-to-server.

Metadata capture

Nearly all logger software in 2003 offered speech to text, scene change recognition, and time stamping. Some products are moving towards offering facial and geo-spatial recognition, though these are fairly new technologies and are still being tested. Some players are also combining foreign language metadata capture capabilities within their products.

Web and wireless enabled solutions

As internet popularity has grown, so has the need for rich content. Since video loggers can now interface directly into a content

management system it has become progressively easier to index, search, retrieve, edit, and publish to the net. Corporate websites and wireless networks have been able to provide greater interactivity to their users by imbedding rich content into their portals.

Software architecture

The main thrust in technology development in the DAM software space has been towards creating open architecture software to integrate better with other systems. Most DAM software suites are now modular in architecture so that clients can pick and choose the module most relevant for their needs.

Scalability of solutions

Scalability of the solutions offered in this market has been another significant trend. There has been a significant increase from both the demand and supply side in rich content. This has created a need for systems that can scale up to manage the ever-increasing flow of rich content.

Bandwidth and network security developments

As bandwidth restrictions are easing due to increased implementation of broadband access across networks, digital delivery has become more viable and attractive to customers. Enterprises need a reliable medium to transport information in a rapid and secure way. Until now, bandwidth restrictions have created dissatisfaction among customers due to the slow rate at which files were transported. The proliferation and reduction in cost of broadband enabled networks has enabled the transfer of digital files at much greater speeds. Developments in network security have also allayed many fears of possible hacking and corruption of files *en route*.

File compression developments

As file compression technologies are getting more refined, it has become easier to send terabytes of data across networks by compressing the files into a few gigabytes. Previously, it would not have been feasible with the network congestion to imagine being able to send such massive files in real time.

MAJOR RESEARCH FINDINGS

Opportunities and forecasts

As applications for digital media are increasing across market segments, the demand for digital asset management solutions is also increasing. There is tremendous opportunity in present markets where DAM systems are being deployed already, as well as in many upcoming verticals such as healthcare and the mobile wireless market.

The acceptance of these solutions among global 2000 companies and advertising companies has been exceptional. These segments are expected to grow tremendously and stay ahead of the media and entertainment/broadcasting vertical, which has been traditionally the biggest vertical for DAM solution.

Industry-wide revenues are expected to grow at a very healthy 20.2 per cent compound average growth rate (CAGR) over the forecast period. The next few years are going to see rapid consolidation across the DAM value chain, in terms of mergers and acquisitions.

MARKET SEGMENT ANALYSIS

Digital logger segment

Complete logger product suites are client-server applications that enable the encoding, archiving, indexing, search, and retrieval of digital content using metadata capture. This is the first step in the digital asset management process and logger software occupies the initial space of the DAM value chain with DAM software being the core and digital delivery the other end of the value chain.

The market slowed down considerably because of economic conditions in 2002, and revenues for the market were up by a mere 1 per cent from 2001. In 2003, the logger segment staged a huge comeback. This segment is expected to grow at a CAGR of 20.8 per cent over the forecast. The realization of the value proposition offered by logger software, the FCC mandate to digitize broadcast signals by around 2007 and proliferation of digital assets across market segments such as government, healthcare, and the mobile wireless market are among the key drivers that will help drive

growth in the industry.

Digital asset management core solutions segment

The digital asset management core solutions market is also known as digital media management software (DMMS), media asset management (MAM), and rich asset management (RAM). Complete DAM product suites are client-server applications that enable the management, ingest, querying and retrieval, manipulation, annotation, and display of digitized media assets. This is at the core of the media asset management value chain with loggers at one end and the delivery component at the other end.

The DAM core solutions market is expected to grow at an extremely healthy rate over the forecast period as consolidation occurs within the industry, DAM solutions are adopted in more verticals like healthcare, and returns on investment are realized through DAM implementation. The CAGR for this market is forecast at 21.2 per cent for the period.

Digital delivery segment

The digital delivery segment is the third and final part of the digital asset management value chain. Products and services in this segment enable workgroup collaboration and authorization of content. Digital asset delivery is an efficient solution to the growing collaboration needs among decentralized workgroups. They enable the transport of digital assets across public or private networks from one location to another.

This market accounted for 48.9 per cent of total DAM revenues for 2003. The compound annual growth rate (CAGR) for digital delivery software and services is 19 per cent. This growth will be driven by the easing of bandwidth restrictions and greater speeds to market that customers will realize over terrestrial means of delivery, among other key factors.

CONCLUSIONS

There is vast potential for DAM solutions in the future. As the digital age is transforming day-to-day life, increasingly digital media applications are being found in different market segments, bringing with them the need to manage these

digital assets. Despite the slowing economy and tighter capital markets, this market has proven its viability in today's business environment. Successful companies in this market will be the ones that can leverage their technologies with

strategic partnerships with others in the DAM space and consolidate their core competencies to gain market share by targeting multiple verticals instead of using a niche strategy in this rapidly growing market.