Summary of the ATM Forum’s Report on
ATM in Europe—A Market Survey of Users and Operators

The ATM Forum’s European Market Awareness and Education Committee (EMAC) funded a comprehensive survey of ATM users in Europe and of European operators planning to roll out ATM in their network. The objective of the survey was to determine exactly what European businesses believe ATM will mean for their organizations.

This paper summarizes the main findings of the EMAC survey. The complete published results are available from the ATM Forum, which can be contacted by e-mail at info@atmforum.com or on the World Wide Web at http://www.atmforum.com.

Objectives and scope of the survey

EMAC commissioned the Cambridge, UK, based firm Analysys to carry out the interviews and to compare the perceptions of current ATM users with those of future users. Analysys interviewed 350 telecommunications strategists in large- to medium-sized organizations in 12 European countries. Additionally, they interviewed marketing and product managers responsible for ATM services in 14 public network operator organizations.

The study’s purpose was defined as “to develop a vision of the future of ATM in Europe based on a rigorous analysis of a broad cross-section of user and telecom operator views.”

Tactics were (1) to gather a representative sample of users’ opinions to determine their awareness and expectations of ATM; (2) to gather a cross-section of operators’ views on the users’ understanding of ATM and the operators’ visions for ATM; (3) to compare users’ expectations with the operators’ plans; and (4) to develop plausible scenarios for the future of ATM in Europe.

Both the user and the operator surveys addressed the following topics:

• Current and future use of broadband applications
• Business drivers influencing the purchase of broadband communication services
• Awareness of the term "asynchronous transfer mode"
• Understanding of and attitude towards ATM
• Expectations of the ATM roll-out in the LAN and WAN
• Impact of ATM on the service that telecom operators are delivering to users
• Key buying criteria for ATM

Based on survey results, Analysys developed two plausible scenarios for the development of ATM in both the local area network and the public network over the next five years. The results were published in May 1995 in a report to the ATM Forum entitled ATM in Europe—A Market Survey of Users and Operators.
Main findings of the interview programs and the results of the data analysis

This section summarizes the user and operator responses to key questions, the statistical analysis of the data, and Analysys’ interpretation of the results. Highlights are presented below; complete results with detailed discussion are found in the report available from the ATM Forum.

To identify the issues that will impact the development of ATM markets (LAN and WAN equipment providers, and providers of public network ATM services), Analysys presented its findings in the context of a set of key questions.

Why do users buy telecoms?
Cutting costs and improving customer service are the key deciding factors in the purchase of telecom services. Either factor is more than twice as important as any other factor cited in the survey. The other factors include improving quality management, enabling organizational restructuring, and growing the business. Network operators correctly perceive the importance of these factors to users.

Today, the leading application for users is LAN, followed by collaborative working and e-mail. Operators have a broadly accurate perception of these uses, although they underestimate collaborative working. By the year 2000, 95% of organizations expect to use LAN interconnection, with other applications increasing in importance. Multimedia and desktop video conferencing are expected to grow most significantly.

Do users want ATM—and if so, why?
The level of ATM awareness is surprisingly low, with 32% of all telecom strategists interviewed reporting that they had not heard the term before. Awareness is not correlated with application usage, except in the education and entertainment/publishing sectors, which are heavy users of multimedia information retrieval and desktop video conferencing. The finance sector, a leading investor in telecommunications, shows a particularly low level of awareness. Among those who know about ATM, a majority respond favorably toward it. Entertainment, publishing, and education sectors are the most enthusiastic; aerospace/automotive, healthcare, and travel/transport the least. However, awareness does not necessarily mean acceptance, and if ATM is to reach a mass audience, Analysys believes that the "unaware and unsure" must be convinced of the benefits of ATM.

Users expect improvements in service quality and reliability and in speed of implementation from ATM, but they also expect to pay more. Users will make their buying decisions based primarily on cost, followed by existing infrastructure investment and ease of integration. Stability of standards, one of the major concerns of operators, is almost the least of the users' concerns.

Those most favorably disposed towards ATM are characterized by a strong interest in technology and applications such as video conferencing and e-mail; they show less interest in business imperatives of price, security, and growth; and they tend not to be heavy users of LAN interconnect.

When do users expect to get ATM?
The majority of respondents aware of ATM expect to see it used in LANs initially to connect them to the public network, with ATM to the desktop in 1 to 4 years. Over 35% do not expect to see full availability in the public network for at least 5 years.

What pricing structure do users expect in relation to their existing services?
The survey indicates that the more important price is to users, the less positive their attitude towards ATM.

Presently, most users see ATM as a substitute for ISDN in WAN applications, and expect tariff structures for public ATM services to resemble those of ISDN. Operators, however, see ATM as a natural migration from frame relay and SMDS, and appear to be using these services—less familiar to users—as a model for ATM tariffs.

Currently, price is the most important purchase criterion for users. But even though operators expect to deliver public network ATM at lower costs, users think they will be asked to pay more.
This implies that users require a means of comparing prices on a basis they understand, to make clear the cost advantages of ATM.

**Who will be the key users, sectors, and countries in the ATM roll out?**

Analysys identifies three types of key users in the roll out of ATM: (1) those with a vision of integrated applications running seamlessly across multiple sites over wide area networks; (2) those concerned solely with reducing costs and increasing the efficiency of existing applications; and (3) those who will buy because ATM is a new and exciting technology.

The visionaries are expected to generate the strongest long-term market growth. Cost-conscious users concerned mainly with existing applications will be focused on the short term and will need ATM in the LAN for intra-site network evolution. These users will probably not generate significant near-term growth in WAN services.

Most technology enthusiasts are expected to justify buying decisions on short-term needs, with very little effort going into an understanding of how ATM can be used to change business processes and organization for competitive advantage. Technology bought under only these circumstances is expected to "wither and die."

Analysys believes that the visionaries who will lead the development of ATM are those with the following characteristics: strong awareness of business imperatives, use of broadband applications, awareness of ATM, willingness to innovate, and higher overall spending levels. This suggests as key targets aerospace and automotive engineering—which are also under heavy competitive pressures, and have large numbers of PCs that are not yet networked.

**How will the market grow?**

Based on the evidence presented in their report, Analysys makes a number of market projections.

- **Growth in networked PCs and LANs**
  By the year 2000, one employee in six in Europe will use a networked PC. One company in five will have one of 2.2 million LANs.

- **Public network ATM connections**
  Analysys developed country-by-country forecasts of the number of 34 Mb/s-equivalent ATM connections. In one scenario, Analysys predicts an aggressive roll-out of public network ATM into major cities and ubiquity of services within 5 years. Pricing policy is aggressive, and ATM is marketed as a total organizational solution. As a result, connections will reach 22,000 by the year 2000.

  In the other scenario, Analysys assumes that operators continue ATM trials for another 18 months and roll out ATM services slowly across Europe. ATM is marketed as a technology rather than a total solution, and prices are kept high. Connections reach only 4,200 by the year 2000.

- **Public network ATM revenues**
  In the first scenario, public network ATM revenues rise to more than ECU 1.25 billion by the year 2000; in the second, to about ECU 200 million.

- **Revenues from telecom bearer services**
  Revenues are forecast for all public network bearer services to business users. ATM revenues in the first scenario account for 2.5% of total revenues by the year 2000.

**What should telecom operators and equipment manufacturers be worried about?**

Analysys summarizes their findings by listing six crucial issues that should concern proponents of ATM:

- In a survey of European organizations representing 70% of telecom expenditures, only one half appear to want ATM, and one third have never heard of it.

- Those most enthusiastic about ATM are least concerned with business imperatives.

- There is a lack of awareness among high-spending sectors within the user community—finance, retail, and automotive, for example.

- The benefits that users expect to get from ATM are not the criteria on which they make their buying decisions.
• There is confusion over the economic messages about ATM services.

• Users will not pay more for ATM.

These issues must be addressed to ensure the fullest implementation of ATM technology.

Is ATM going to happen?
Analysys concludes its report by stating that long-term sustained growth of the ATM market will depend on convincing "unaware and unsure" users of the benefits of ATM. This will require a major education program that relates the benefits of integrated ATM networks to key strategic drivers in business—reduced costs and improved customer service. The seamless, integrated networks that ATM can deliver must be seen as offering a competitive advantage.

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