

Ricardo Baía Leite

"Gerenciamento de Redes ATM: Priorizando uma Abordagem SNMP"

ATM (Asynchronous Transfer Mode) network technology displays a number of important features, such as the facility to alter gradually the allocated bandwidth, and to guarantee QoS (Quality of Service) for new types of applications, especially those transporting multimedia. However, the use of ATM depends on highly complex and software-intensive protocol infrastructure. This includes specific signalling protocols and its own addressing structure, as well as routing protocols for ATM connection requests. In their turn, these protocols influence the way in which higher level protocols, such as the Internet Protocol (IP), can operate in ATM networks. A number of different solutions for implementing IP over ATM are presented and compared. Manageability is one of the keys to the success of ATM, and in contrast to the intrinsic difficulties of adopting a network technology of well known complexity, the simplicity of the SNMP (Simple Network Management Protocol) approach to network management is used. In particular, presentation is made of the network resources which may be managed by use of the AToM and ILMI (Integrated Local Management Interface) MIBs. In addition, a number of prototype ATM management applications have been developed, using the Scotty platform. These are concerned with the management of permanent virtual channels, through use of the AToM MIB.