ERCIM NEWS

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Prof. Peter Kirstein, from the Department of Computer Science, University College London, emphasizes the importance of a European dimension in network management.

SPECIAL :

Activities in
Network Management............11

CONTENTS

Next Issue:

Parallel Architectures

EDITORIAL

Over the last decade, the interconnection of European research institutions has grown at an impressive rate. Examples are: the near universal availability of electronic mail, the impressive number of CEC projects with a similar set of partners, the rapidly emerging directory services, and the ability to envisage on-line research collaboration between most major research groups in Europe.

The originally purely National groupings of research groups, whose interactions were greatly helped by computer network links, were only later on supplemented by international grouping. Here a separate European dimension is vital to avoid being swamped by the transatlantic activities in research networks which, although usually ahead of ours, are not always correct for us.

This issue, with its theme of Network Management activities within ERCIM institutes, addresses issues vital to the success of the ERCIM goal to foster the European groupings in research – with broad ramifications. Several of the papers ostensibly describe just the developments of National or regional networks for research; even a perfunctory reading of the multiplicity of services, speeds and protocols these networks must embrace show that network and resource management issues dominate the technical activity behind the developments.

The major National research networks incorporate network management systems of various degrees of sophistication – usually as a result of evolution rather than a top-down design and development. From the beginning, the European RACE programme recognised the importance of network, resource and application management as major research themes. It is particularly encouraging that so many of the ERCIM organisations are collaborating in these aspects of the RACE programme. These collaborations are broad; for instance no less than six of the eight have some relations in this area with my own institution. The next generation of networks for research will be based on the Asynchronous Transfer Mode (ATM) technology which is the theme of several of the papers here. Moreover there are currently some differences between the European network management activities and those of the US; it is particularly important that there be informed network specialists in Europe who can discuss the alternate approaches internationally from a solid technical base of experience.

Three of the ERCIM laboratories will be participating with my institution in the first stage of the forthcoming Multimedia Integrated Conferencing for Europe (MICE) pilot project, and others are expected to join later. The network and resource management activities outlined here are vital to the successful outcome of that project – and that application will provide a stringent test for the applicability of the techniques being developed.

The activities of the ERCIM institutes will play an increasing role in the evolution of services to aid collaboration of European researchers; the development of standard mechanisms for network management will be a key element to success in this endeavour.

Peter Kirstein