

3C3 The Future of Packet Handling

Alan Taylor, Juniper Networks, EMEA, United Kingdom

Abstract:

The future is now clearly visible in which large-scale packet networks will form the backbone infrastructures for all service providers, serving all forms of computer interconnection, telecommunications, information delivery and broadcast entertainment. This implies the need for IP and packet routing systems at ever increasing scale, while retaining the reliability and perceived quality requirements of each of the services to be delivered.

This presentation will describe the latest advances in packet routing technology, to achieve the required scale, reliability and quality, while also retaining the flexibility to address different CoS requirements, multicast traffic streams, IPv6 transition and security. It will examine how this technology can be applied to address the specific requirements for service intelligence and performance at the core and edge of the Research and Education backbones in Europe.

The requirements for scale and flexibility in the core also imply a need for closer integration between the packet layer systems and the optical transmission layer. The presentation will provide a view of the potential of the GMPLS to offer a common control plane for the packet routing and optical equipment, with a view to addressing the issues and requirements of GRID applications in the Research community.