



PALESTRA

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Palestra: Dia 13/8/09 das 14:30 às 15:30 – Sala H - 301

Optimizing Resource Allocation in Xen-based Virtual Routers

Abstract - Router virtualization seems to be the key to easily deploy and manage next generation overlay virtual networks. For virtual routers to be viable on commodity hardware, it is necessary to dynamically afford them sufficient resources in order to achieve the required performance. In this presentation, we first show the impact of tuning the CPU scheduler on forwarding performance of virtual routers running on the same physical machine. Thus, we adapt the CPU scheduler to the virtual routers needs, in a manner that an optimal overall forwarding performance is achieved. Then, we enhance the system by a mechanism aiming to privilege delay sensitive flows. It achieves classification and scheduling of the incoming packets in the driver domain, which allows privileged flows meet their requirements.

Biography: Guy Pujolle received the Ph.D. and "Thèse d'Etat" degrees in Computer Science from the University of Paris IX and Paris XI on 1975 and 1978 respectively. He is currently a Professor at the Pierre et Marie Curie University (Paris 6) and a member of the Scientific Advisory Board of Orange/France Telecom. He spent the period 1994-2000 as Professor and Head of the computer science department of Versailles University. He was also Professor and Head of the MASI Laboratory (Pierre et Marie Curie University), 1981-1993, Professor at ENST (Ecole Nationale Supérieure des Télécommunications), 1979-1981, and member of the scientific staff of INRIA, 1974-1979.

Dr. Pujolle is the French representative at the Technical Committee on Networking at IFIP. He is an editor for International Journal of Network Management, WINET, Telecommunication Systems and Editor in Chief of the indexed Springer Journal "Annals of Telecommunications". He was an editor for Computer Networks (until 2000), Operations Research (until 2000), Editor-In-Chief of Networking and Information Systems Journal (until 2000), Ad Hoc Journal and several other journals. Guy Pujolle is a pioneer in high-speed networking having led the development of the first Gbit/s network to be tested in 1980.

Guy Pujolle is co-founder of QoS MOS (www.gosmos.fr), Ucopia Communications (www.ucopia.com), Ginkgo-Networks (www.ginkgo-networks.com), EtherTrust (www.ethertrust.com), and Virtuor (www.VirtuOR.com).