Testing ATRIUM with Demanding Applications

Application of the network traffic from the computation and storage grid environment for network performance evaluation from end-user perspective

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Abstract

Process of network testing with use of typical measurement tools gives very exact and reliable data, which unfortunately do not transpose in an universal manner to the end user satisfaction level. In the ATRIUM project the network is tested by advanced bandwidth-demanding applications commonly used in GRID environment. Different test scenarios are performed on the testbed. The presentation describes the network setup, network requirements of advanced applications, measurement mechanisms used and early measurement results.

Vitae

WIM BARBAIX is the project manager for the IST-ATRIUM project. He received his M.Sc. degree in computer Engineering at the Free University of Brussels (VUB), Belgium . In 1988, he joined the Alcatel Corporate Research Centre to build the first ATM switch of Alcatel. After developing the broadband evolution of the voice switch he joined the IP Core development in 1999 to become the software development leader of the A7770 RCP Terabit router. In 2000 he joined the engineering services department to lead the European programs dealing with the A7770 RCP and OBX.

ARTUR BINCZEWSKI received the M.Sc. degree in Computer Science from the Poznan University of Technology in 1993. His research interests concern computer networks, routing, multicasting and management. He is the Manager of Network Department at Poznan Supercomputing and Networking Center.

MACIEJ BRZEZNIAK received the M.Sc. degree in Computer Science from the Poznan University of Technology in 2001. He is currently working in Supercomputing Department at Poznan Supercomputing and Networking Center. His research concern distributed computing

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MIROSLAW CZYRNEK

Miroslaw Czyrnek, born in 1978, received his M.Sc. degree in Computer Science from Poznan University of Technology in 2002. Since 1999 he has actively participated in works conducted in PSNC Network Services Department, concerning access portals and advanced network services. His interests focus on advanced technologies in the area of education and entertainment.

MICHAL PRZYBYLSKI received his M.Sc. degree in Computer Science from Poznan University of Technology in 2002. He is currently working in the Networking Division and is a member of Polish Optical Internet design group. He is directly involved in QoS and MPLS research and testing in next-generation networks. His interests focus on advanced networking technologies.

TOMASZ RAJTAR received his M.Sc. degree in computer science at Poznan University of Technology in 1999. He is currently working in the Supercomputing Department as software analyst. He is directly involved in Virtual Laboratory research project. His interests focus on high performance computing, object programming, visualisation, web technologies.

SZYMON TROCHA received an M.Sc. degree in computer science from Poznan University of Technology in 1998. He is mainly involved in the network management applications planning and implementing. He is also responsible for traffic analysis and MPLS technology research and implementation.

MACIEJ STROINSKI received the Ph.D. degree in Computer Science from the Technical University of Gdansk in 1987. Currently he is Technical Director of the Poznan Supercomputing and Networking Center. He is also the lecturer at the Institute of Computing Science of the Poznan University of Technology. His research interests concern computer network protocols and management. He is the author and co-author of over 100 papers in major professional journals and conference proceedings.
He is also a co-author of the "PIONIER: Polish Optical Internet - Advanced Applications, Services and Technologies for the Information Society" programme, which constitutes the basis for building an information infrastructure for science within the years 2001 - 2005.