

Academic & Research Environments in America, Asia and Europe: PetaScale Trends and Beyond

Dr. Frank Baetke, *HP*

Abstract

Academic and Research HPC environments in Asia and Europe underwent significant changes in the past years. Widely established standards at processors, node, interconnect and software level helped significantly to ease cross-site and cross-country collaboration and load-balancing. Examples of typical environments will be shown and future trends and new challenges including the potential use of HPC Clouds will be discussed. Towards the high end of the system pyramid new standards are also emerging that again look different from what has been anticipated years ago. A typical example of an advanced Peta-scale system will be evaluated in detail. The lecture will be closed with an outlook towards Exa-scale systems.