



Contribution ID: 36

Type: oral presentation

EVO (Enabling Virtual Organizations), the Next Generation Grid-enable Collaborative

Monday, 3 September 2007 14:20 (20 minutes)

The EVO (Enabling Virtual Organizations) system is based on a new distributed and unique architecture, leveraging the 10+ years of unique experience of developing and operating the large distributed production based VRVS collaboration system. The primary objective being to provide to the High Energy and Nuclear Physics experiments a system/service that meet their unique requirements of usability, quality, scalability, reliability, and cost necessary for nationally and globally distributed research organizations.

The EVO system, which will be officially released during March/April 2007 includes a better-integrated and more convenient user interface, a richer feature set including higher resolution video and instant messaging, greater adaptability to all platforms and operating systems, and higher overall operational efficiency and robustness. All of these aspects will be particularly important as we approach and then enter the startup period of the LHC because the community will require an unprecedented level of daily collaboration. There will be intense demand for long distance scheduled meetings, person-to-person communication, group-to-group discussions, broadcast meetings, workshops and continuous presence at important locations such as control rooms and experimental areas. The need to have the collaboration tools totally integrated in the physicists' working environments will gain great importance. Beyond all these user-features, another key enhancement is the collaboration infrastructure network created by EVO, which covers the entire globe and which is fully redundant and resilient to failure. The EVO infrastructure automatically adapts to the prevailing network configuration and status, so as to ensure that the collaboration service runs without disruption. Because we are able to monitor the end-user's node, we are able to inform the user of any potential or arising problems (e.g. excessive CPU load or packet loss) and, where possible, to fix the problems automatically and transparently on behalf of the user (e.g. by switching to another server node in the network, by reducing the number of video streams received, et cetera). The integration of the MonALISA architecture into this new EVO architecture was an important step in the evolution of the service towards a globally distributed dynamic system that is largely autonomous.

The EVO system is intended to become the primary collaboration system used by the High Energy and Nuclear Physics community going forward.

Primary author: Mr GALVEZ, Philippe (California Institute of Technology)

Co-author: Prof. NEWMAN, Harvey (California Institute of Technology)

Presenter: Mr GALVEZ, Philippe (California Institute of Technology)

Session Classification: Collaborative tools

Track Classification: Collaborative tools