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WLCG Networks: Update on Monitoring and Analytics

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WLCG relies on the network as a critical part of its infrastructure and therefore needs to guarantee effective network usage and prompt detection and resolution of any network issues, including connection failures, congestion and traffic routing. The OSG Networking Area, in partnership with WLCG, is focused on being the primary source of networking information for its partners and constituents. It was established to ensure sites and experiments can better understand and fix networking issues, while providing an analytics platform that aggregates network monitoring data with higher level workload and data transfer services. This has been facilitated by the global network of the perfSONAR instances that have been commissioned and are operated in collaboration with WLCG Network Throughput Working Group. An additional important update is the inclusion of the newly funded NSF project SAND (Service Analytics and Network Diagnosis) which is focusing on network analytics.

In this talk we'll describe the current state of the network measurement and analytics platform and summarise the activities taken by the working group and our collaborators, focusing mainly on the throughput issues that have been reported and resolved during the recent period with the help of the perfSONAR network. We will also cover the updates on the higher level services that were developed to help bring perfSONAR network to its full potential. This includes the progress being made in providing higher level analytics, alerting and alarming from the rich set of network metrics we are gathering. . Finally, we will discuss and propose potential R&D areas related to improving the network throughput in general as well as prepare the infrastructure for the foreseen major changes in the way network will be provisioned and operated in the future.

Consider for promotion

Yes

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