9th International Conference "Distributed Computing and Grid Technologies in Science and Education" (GRID'2021)



Contribution ID: 73

Type: Sectional reports

IPv6 dual-stack deployment for the distributed computing center

Thursday, 8 July 2021 16:15 (15 minutes)

Computing Center of the Institute for High Energy Physics in Protvino provides computing and storage resources for various HEP experiments (Atlas, CMS, Alice, LHCb) and currently operates more than 150 working nodes with around 3000 cores and provides near 2PB of disk space. All resources are connected through two 10Gb/s links to LHCONE and other research networks. IHEP computing center has IPv4 address space limited to one C-sized and all working nodes are installed behind the NAT which has some drawbacks for production use. To optimize routing, switching and to get higher network throughput for data transfer the IPv6 dual-stack deployment was made for the computing farm. In this work the full cycle of

the real IPv6 dual-stack deployment from zero to production will be shown. This work can be used by other WLCG centers and all other data centers for distributed computing as an example of necessary steps and configurations which have to be made.

Summary

Primary authors: KOTLIAR, Viktor (IHEP); KOTLIAR, Anna (IHEP)

Presenter: KOTLIAR, Viktor (IHEP)

Session Classification: Research infrastructure

Track Classification: 2. Research infrastructure