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GridPP wider community support and SKA synergies

GridPP has been a core member of the WLCG since its inception. In recent years various pressures have led to an increased focus on sharing GridPP resources and supporting new communities outside of the LHC experiments and beyond HEP. The first part of this paper brings together a review of the current approaches within GridPP to harness traditional resources for these 'other' Virtual Organisations, and also to bring in new resources such as HPC and commercial cloud providers. The paper presents several case studies and highlights common difficulties being encountered. A community whose impacts will be strongly felt in the coming years is astrophysics. Within this domain, the Square Kilometre Array (SKA) project presents some of the biggest computing challenges. The second part of this paper presents the background to SKA computing work being taken forward by the Science Data Processor (SDP) Consortium and outlines studies informing the design (many of which parallel HEP challenges in areas such as exploiting parallelism). The paper ends with a summary of directions and current findings of studies examining the challenge for SKA Regional Science Centres. Potential synergies with HEP distributed computing are discussed.

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