Data Flow Prioritization for Scientific Workflows Using A Virtual SDX on ExoGENI

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Abstract

- We present a novel, dynamically adaptable networked cloud infrastructure driven by the demand of a data-driven scientific workflow running on dynamically provisioned 'slices' spanning multiple ExoGENI racks.
- We show how a virtual Software Defined Exchange (SDX) platform, instantiated on ExoGENI, provides additional functionality for management of scientific workflows.

• We demonstrate how tools developed in the DoE Panorama project can enable the Pegasus Workflow Management System to monitor and manipulate network connectivity and performance.





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