

Yoonho (Yoon) Park

Workflow Support for Weather Simulation

Increasingly, researchers and developers across different technical computing domains depend on a set of applications to produce actionable results rather than a single monolithic executable. The applications comprise a workflow solution that can be deployed on a cluster or in the cloud. Each application in the workflow may have different compute, memory, communications, and input/output requirements, but also have shared common data needs. Sharing of data within a workflow of applications running on standard cluster or in the cloud can be facilitated by a Data Broker. In this talk, we will describe a framework that leverages a central data broker to manage shared common data access within a technical computing workflow for simulating and visualizing weather events. This workflow is just one instantiation of a Technical Computing As A Service (TCaaS) prototype that we have developed to aid researchers and developers in building workflow solutions for cluster or cloud deployments.