OpenSHMEM Specification and Usage

Half Day Tutorial

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Tutorial Type: Presentation

Abstract:
OpenSHMEM project aims to standardize several implementations of the different SHMEM APIs In this tutorial we introduce OpenSHMEM as a possible solution for easy conversion of sequential applications to code that can run in parallel at large scale and improve your productivity. We will learn how to use OpenSHMEM by porting existing applications that use message passing techniques to equivalent OpenSHMEM programs that are more scalable. We will also see how to convert programs using other existing flavors of SHMEM to portable OpenSHMEM programs.

Topics Covered:

- SHMEM library features and capabilities (symmetric data, one-sided data transfers)
- Introduction to OpenSHMEM and its goals
- Understanding the OpenSHMEM API
- Getting started with SPMD applications using OpenSHMEM
- Porting applications that currently use MPI