

L0: Application and User Tools

L1: Runtime Environments

Resource Management Abstractions: Pilot Abstractions (Pilot Job/Pilot Data)

L2: Data-Cyberinfrastructure

e.g. File-Systems, SQL/no-SQL

L2: Infrastructure Abstractions

Templated Appliances and Virtual Clusters

L4: Execution Environment

e.g. XSEDE, OSG, Clouds