

### **Application Layer (LDM-151)**

- Scientific Layer
- Pipelines constructed from reusable Algorithmic Components
- Data Products represented by Shared Software Primitives
- Object-oriented, python, C++ Custom Software

### **Middleware Layer (LDM-152)**

- Portability to clusters, grid, other
- Provide standard services so applications behave consistently (e.g. provenance)
- Preserve performance (<1% overhead)
- Custom Software on top of Open Source, Off-the-shelf Software

### **Infrastructure Layer (LDM-129)**

- Distributed Platform
- Different sites specialized for real-time alerting vs peta-scale data access
- Off-the-shelf, Commercial Hardware & Software, Custom Integration

