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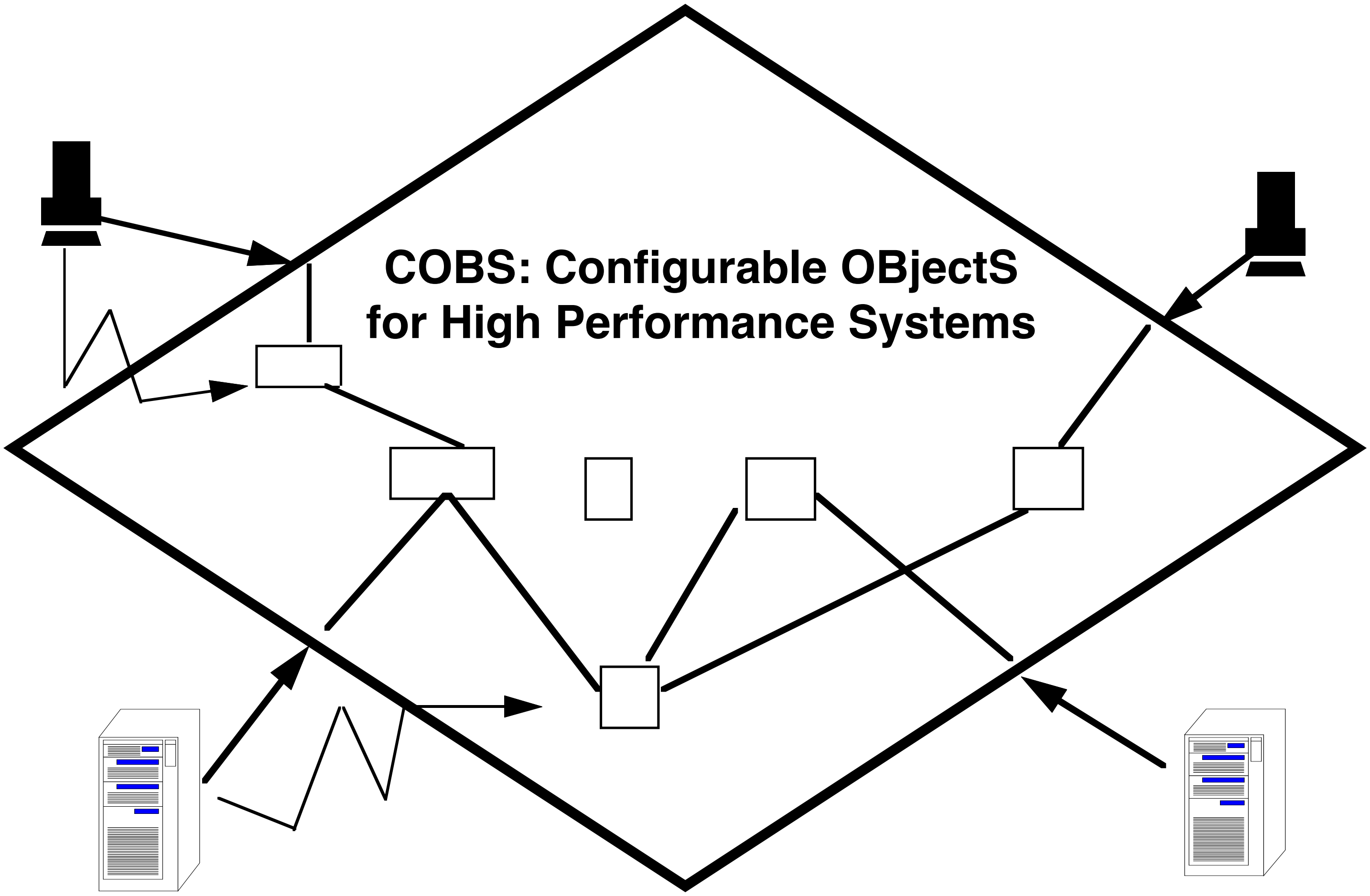
COBS: Configurable OBjectS for High Performance Systems



Key Ideas

- **Middleware must present a single programming model on future HPC platforms**
- **Middleware must accommodate varying application requirements and underlying platform capabilities**
- **Compose objects to offer only required functionality**
- **Configure and adapt object implementations to match platform characteristics and application needs**

Impact

- Enhanced programmability due to a single object model that spans wide range of applications

- High performance of object implementations by employing a rich variety of performance techniques, including state caching and fragmentation, and dynamic object adaptation

- Broad utility due to interface with evolving industry standards (e.g., COS) and consideration of PC, workstation, and supercomputer platforms by interoperating with multiple operating systems computer platform**s by interoperating with multiple operating systems**

Timeline