

GRIDS@Work Industrial Panel

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Selling GRID



- **Prerequisites:**

- **Low cost:**

- TCO must be low; not just the initial cost

- **Broad application support:**

- Need to create an ecology that enables interoperable application creation & extension

- **Ease of development, use, and management:**

- Need to cater to non-computer scientists
 - Systems must be reliable, highly available, and self-managing

- **Trusted platform:**

- Security is a prerequisite
 - Security requires a pervasive, cross-cutting, end-to-end solution

Transitioning to the future



Customers require:

- **Applications ecology:** An integrated supported solution stack, with many pre-existing applications
- **Ease of use:**
 - Simplified environment from desktops to HPC clusters
 - Simple migration for existing programs
- **Flexibility:** Scalable compute performance

Administrators require:

- **Ease of management:**
 - Same management mechanisms and tools that work for IT networks today
 - Better monitoring and management for maximum resource utilization and problem diagnosis
 - Flexible and extensible
- **Reliability and availability:** Maximum node uptime
- **Security:** Guaranteed Integrity, secure process startup, sandboxing, and cleanup

Developers Require:

- **Ease of development:**
 - Short Term:
 - Tools to simplify debugging and profiling asynchronous programs
 - Language adaptations to simplify the development of applications that leverage parallelism
 - Long Term
 - New programming models/languages that integrate parallelism?