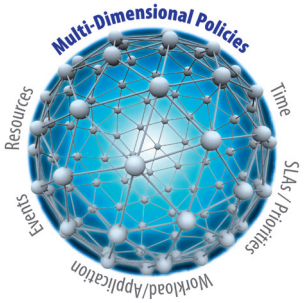
Adaptive COMPUTING

Maui vs Moab

10 Reasons to Switch from Maui to Moab

Many Maui users make the switch to Moab each year for key scalability, capability, and support advantages that help them run a more efficient and optimized HPC system. Moab HPC Suite is a policy-based intelligent workload management system that automates the scheduling, managing, monitoring, and reporting of HPC workloads on massive scale. The following ten points call out key capabilities of Moab that are lacking in Maui:



1. **Scalability for Growing Needs:** Moab can scale to manage the workload of environments as they grow up to massive size, beyond the capacity of Maui. Moab easily scales to manage over 15,000 nodes, hundreds of thousands of queued job submissions, and over 500 users.
2. **Flexible policies:** a) Deadline based prioritization policy to meet service level guarantees and organizational priorities. b) Hierarchical fairshare usage prioritization policy enables more representative and accurate prioritization. c) More flexible and automated preemption policies based on a fuller context of the changing environment. d) More flexible and granular Quality of Service policies to better deliver service level guarantees.
3. **Professional Services:** Moab HPC Suite customers have access to 24x7 technical support, patches, and training from Adaptive Computing HPC experts to ensure questions and issues are resolved quickly so there is no disruption to or decline in performance of workloads on their cluster. (Includes support for Torque.)
4. **Intelligent Management and Automation:** a) Integrate with provisioning managers to dynamically auto-provision OS's. b) Integrates and resolves resource status data conflicts between multiple managers to make more accurate, efficient scheduling decisions. c) Moab can work with license managers such as FlexLM to optimize license use and management.
5. **Uptime Automation:** Moab HPC Suite provides several key capabilities to automate the uptime of your HPC system and the flow of jobs through it. Moab provides for high availability with a synchronized Moab head node for immediate fallback. It also initiates auto-recovery to resource, scheduler, or resource manager incidents and events using custom trigger policies.
6. **Admin Dashboard Tools:** Moab HPC Suite provides an administrator dashboard that visualizes and filters cluster resources and status, enables visual policy management, and provides graphical charts and reports on utilization and workloads.
7. **Simplified Job Submission & Management:** Moab simplifies job submission and management for users with capabilities like advanced job array management, job templates, and a unified self-service submission portal to submit jobs without training, anytime, anywhere. Job templates make it quick for users to submit common jobs, avoiding the repetitive work to specify resources and requirements.
8. **Ongoing Development:** Moab HPC Suite has over 16 years of active development and a dedicated engineering and product management team to continue to deliver the new enhancements and capabilities as HPC needs and complexity continues to evolve. Maui Cluster Scheduler has not had significant enhancements in the past 15 years and has not kept up with new HPC productivity advancements.
9. **Multi-Cluster/Grid Management:** Moab HPC Suite supports both local area grid and wide area grid to enable unified workload and policy management across multiple clusters. This improves the utilization across the multiple clusters as well as the job throughput and results speed by giving users a broader pool of resources their jobs can be placed in.
10. **Enforce Budgeting and SLA's:** Moab HPC Suite provides usage accounting management that automatically schedules resources in line with resource sharing agreements and usage budget allotments, (%age, credits, resource amounts), for specific users, groups, accounts or projects.

Moab vs Maui (cont'd)

Key Value Proposition & Enabling Capabilities: *Accelerate Productivity*	**Moab HPC Suite**	**Maui Cluster Scheduler**
Massive Scalability	✓	No
Workload-optimized allocation policies	✓	Limited
Workload-optimized provisioning	✓	No
Unified workload management across heterogeneous clusters	✓	Limited
Simplified HPC submission and control for both users and administrators	✓	No
Optimized intelligent scheduling	✓	✓
Advanced scheduling and management of GPGPUs for jobs:	✓	No
Workload-aware auto-power management policies	✓	No
Intelligent resource placement to prevent job failures	✓	Limited
Auto-response to incidents and events to maximize job and system uptime	✓	No
Workload-aware maintenance reservation scheduling	✓	✓
Department budget enforcement	✓	No
SLA and priority polices	✓	Limited
Continuous plus future scheduling	✓	✓
Control access to specific resources	✓	✓
Pay-for-use showback and chargeback capabilities	✓	No
Manage and share workload across multiple remote clusters as a unified grid	✓	No

Support and Value-added Modules

Adaptive Computing offers commercial support as well as other value added features that can be purchased to extend the foundation provided by Moab HPC Suite. These capabilities facilitate such things as portal-based job submission, accounting, workflow management, grid management, elastic computing, power management, high throughput submission, and remote visualization. Add these powerful modules according to specific needs.

Evaluate Moab HPC Suite

Customers can make the switch to the more scalable, capable and reliable Moab HPC Suite very easily and for a very manageable cost. To evaluate and experience the advantages of Moab first hand, request a Moab HPC Suite demo or evaluation software at http://www.adaptivecomputing.com, or contact a solutions advisor by phone or email (see contact details below).

Contact a solutions advisor by phone or email, or visit our web site today.

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