Moab Utility/Hosting Suite™

Overview

Moab Utility/Hosting Suite allows organizations to generate entire compute environments dynamically, including compute, service, node, network, storage, and license resources in response to changing workload levels, cluster health, and resource failures. Moab first creates a virtualized pool of all resources and then activates disk-full, diskless, and virtual provisioning technologies to adapt the resources to workload and specific user or group needs. It fully automates resource allocation by matching workload to the optimal set of resources.

Moab also provides advance reservations and ensures that quality-of-service guarantees and service-level agreements are always met for both internal and external customers. With Moab, organizations can offer needed resources, tools, or services to external customers in near real time. Moab does all this transparently, with no required changes in user behavior. Moab Utility/Hosting Suite enables organizations to consolidate all of their resources for maximum utilization while still protecting the sovereignty and flexibility of individual users and groups.

Uses for Moab Utility/Hosting Suite

- **Enable environments to dynamically adapt** to constantly changing workload needs to maximize utilization and service levels
- **Host out tailored resources to other groups**, internal or external, to optimize utilization or for costsharing
- **Instantly utilize commercially hosted resources** to overcome workload spikes, cluster health issues, or resource failures by transparently accessing tightly integrated, tailor-provisioned hosted resources

Benefits

- **Dynamically adjusts entire environments to meet workload needs** with dynamic provisioning and allocation of the full virtualized pool of resources based on backlog, QoS and SLA guarantees, resource failures, or virtually any desired factor
- **Creates custom packages of all resources needed by each group** with *virtual private clusters*
- **Hosts out and invoices based on the range of resources used**, including CPU, network, storage, and applications
- **Allows jobs to run automatically on hosted resources** when local resources cannot meet needs
- **Allows end users to access and pay for unique resources as needed** rather than purchase expensive, underutilized resources
- **Allows local administrators to control the hosted resources** as if they were part of the local cluster

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Dynamically Adapts Environment to Improve Utilization

- Harness the full value of existing compute resources with holistic management that enables resources to be virtualized, viewed, managed, allocated, and provisioned automatically to meet changing workload demand
- Allow compute resources to be reserved in advance, and allow jobs and data to automatically migrate to the most appropriate resources to meet the needs of internal or external workload
- Accommodate the resource needs of different types of workloads (transactional, batch, interactive, or calendar) with the best set of available resources

Shares Underutilized Resources Across Groups

- Unify your environment into a virtualized pool of resources to share underutilized or specialized resources (CPU, storage, applications, etc.) with other departments and groups, with usage billing if desired
- Use detailed resource-consumption reports to effectively share costs of cluster maintenance or to drive self-management behaviors across users, groups, and organizations
- Centralize resources for management and utilization efficiency while protecting the flexibility and sovereignty of local clusters

Guarantees Improved Service Levels and Reliability

- Access hosted resources to grow and shrink your local resources based on factors such as workload spikes, backlog, QoS guarantees, performance metrics, and resource failures
- Set up your local system to automatically allocate and de-allocate hosted resources based on conditions such as workload, time of day, and resource failures or to guarantee resource availability and fulfill existing QoS or SLA arrangements
- Use policies and triggers based on events, conditions, and time to ensure that usage matches set levels and priorities
- Ensure that no one exceeds intended usage with soft and hard limits for users, groups, projects, or organizations

Provides Leading Resource Control to Administrators and Ease of Use to End Users

- Create triggers based on any event, policy, or condition to automate desired administrative tasks or responses
- Reduce end-user job-management training, as users simply submit jobs to the local cluster as usual or through an easy-to-use and fully customizable Web interface
- Use script translation to let users continue job submission unchanged, with Moab translating jobs from the local format (TORQUE, LSF, etc.) to the hosted system's format (LoadLeveler, PBS Professional, etc.)

Creates Additional Revenue Streams by Hosting Out Underutilized Resources

- Create new revenue streams by hosting access to underutilized applications, services, and resources that customers can either access on an evaluation basis or pay for based on actual consumption
- Send and receive automated monthly billing for hosted resources in a phone-bill-like report that shows consumed resources, tracks ROI, and monitors current and historical job and resource trends

Controls Information Sharing and Privacy

- Enable dynamic per-user or per-job networking host security to protect you and your customers
- Use virtual private clusters to let other organizations, groups, and users view only resources, workload, and policy information that pertains to them, allowing full resource details to remain private
- Allow sharing of all desired resource, workload, and policy information for detailed accounting and reporting

Try Moab for 30 days with full technical support—*absolutely free.* For more information, please contact us.

Download . . . **www.clusterresources.com/pages/products/evaluate.php**
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