

Univa Grid Engine

Enterprise-class workload scheduling and optimization solution

OPTIMIZE WORKLOAD AND MAXIMIZE DISTRIBUTED DATA RESOURCES

Univa® Grid Engine® manages workloads automatically, maximizes shared resources and accelerates deployment of any container, application or service. The solution can be deployed in any technology environment, on-premise or in the cloud. By using Univa Grid Engine, enterprises and organizations can deliver products and results faster, more efficiently, and with lower overall costs.

With Univa Grid Engine, workloads are efficiently shared across machines in a data center to optimize the use of the computing infrastructure. Scheduling policies can be applied to all work submitted to the cluster, ensuring high-priority jobs are completed on time while simultaneously maintaining maximum utilization of all cluster machines. The solution also monitors any resource or software license and schedules applications ensuring they are automatically matched to the appropriate licenses and machines.

Host-based resources can be selected at a highly granular level; therefore GPUs can be mapped to Docker containers, and then used by GPU-enabled applications that run on any Docker-enabled host in the cluster.

KEY FEATURES AND CAPABILITIES

Priority and Utilization Policies

Univa Grid Engine software delivers multiple scheduling policies for matching workload in the cluster to business objectives such as maximizing utilization across all machines, reducing turnaround time for jobs in the cluster, and prioritizing workloads according to group or department.

Scalability

Can scale to a cluster of 200,000 cores in a single, managed environment. A single Grid Engine cluster can contain more than 10,000 nodes and run 195 million jobs per month.

Resource Management

The solution continuously collects metrics from all cluster nodes, then uses scheduling strategies configured by the administrator to evaluate all pending workloads and match specific job requirements to available resources.

Multiple-Workloads

Any type of application or accelerator workload, like Docker, Intel KNL, NVIDIA GPUs, can run through Univa Grid Engine.

Quotas and Limits

The solution can configure flexible quotas on users, projects, groups to control how much workload is run in the cluster and by whom ensuring the customer achieves their business SLAs.

Univa® Grid Engine® Highlights

- Improve workload throughput
- Increase utilization
- Accelerate time-to-results
- Decrease management costs
- Lower total cost of ownership

IN THE NEWS

“Using Univa Grid Engine cut hardware costs in half and reduced the time needed to process large data sets and perform calculations.”

– [eWeek](#)

“A product that has the features, capability, and performance that are not only better than the competition, but exceeding what customers require.”

– [Financial Post](#)

“Univa Grid Engine creates efficiencies that otherwise wouldn’t be possible, which shaves a great deal of time from the process.”

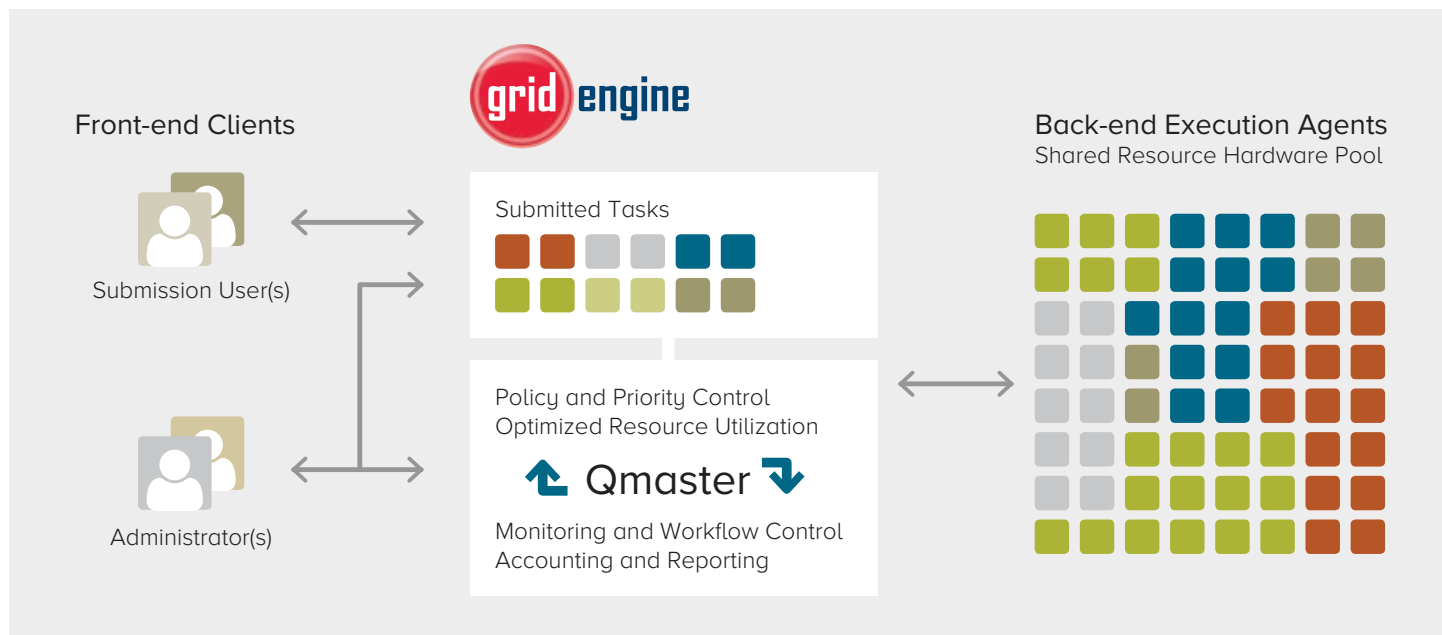
– [Urgent Communications](#)

“Univa’s efforts to incorporate containers into the Grid Engine scheduler and dispatch system have significant implications.”

– [HPC Wire](#)

“Without the correct optimization and management tool in place, enterprises risk losing the benefits of containers.”

– [EnterpriseTech](#)



Select from a variety of Univa Grid Engine add-ons to create a customized solution:



Container Edition

Run Docker containers in a Univa Grid Engine cluster at scale and blend containers with other workloads supporting heterogeneous applications and technology environments.



Unisight Reporting

Unisight is the most comprehensive monitoring, reporting and analytics tool on the market used to track and measure resource utilization in workload-managed clusters.



Short Jobs

A framework to run massive quantities of microsecond tasks and with near-zero overhead to Univa Grid Engine.



License Orchestrator

A manager for the allocation of licensed applications and application features shared across Univa Grid Engine clusters.



Unicloud

Ensure infrastructures are created and configured properly — local or remote in a hybrid cloud, bare metal or virtual.



Universal Resource Broker

A compute pool of distributed resources that hosts all Big Data frameworks and data center services on top of clusters.

About Univa

Univa is the leading innovator of workload management products that optimize performance of applications, services and containers. Univa enables enterprises to fully utilize and scale compute resources across on-premise, cloud, and hybrid infrastructures. Advanced reporting and monitoring capabilities provide insights to make scheduling decisions and achieve even faster time-to-results. Univa's solutions help hundreds of companies to manage thousands of applications and run billions of tasks every day. Univa is headquartered in Chicago, with offices in Canada and Germany. For more information, please visit univa.com.



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