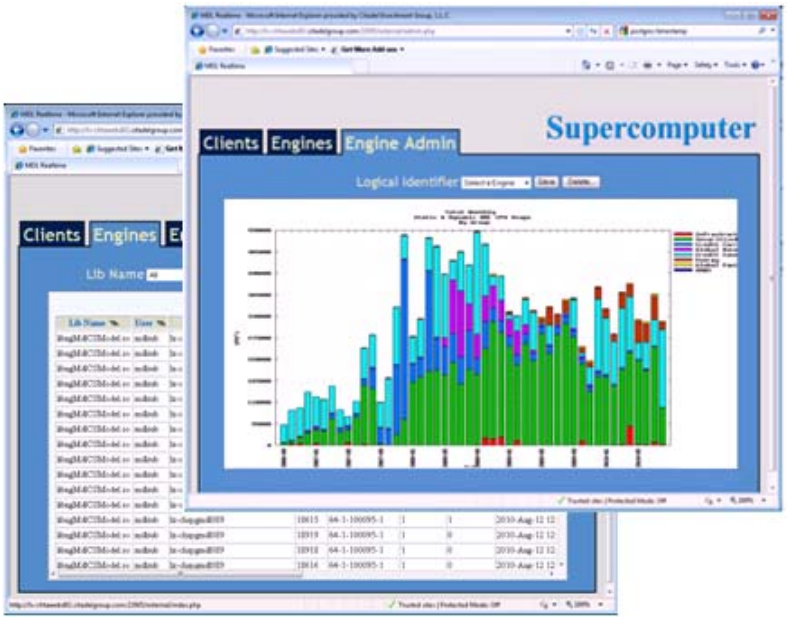
CITADEL | Technology

Supercomputer in a Box

Combine the unused computational capacity throughout your firm into a Supercomputer

Most firms' server hardware is woefully underutilized. The average utilization of most servers is typically 10% or less. Fully loaded desktops come with 12 processor cores and are often less utilized than servers. Wouldn't it be great if you could somehow stitch all that unutilized capacity into one big giant machine? "Supercomputer in a Box" is a distributed parallel programming and runtime environment that does just that. With "Supercomputer in a Box" you can build extremely powerful computational grids without actually buying any hardware. The system will monitor your firms' computational resources and distribute your calculations to the underutilized hardware throughout your firm.



"Supercomputer in a Box" can distribute your computations to GPUs as well as CPUs. When coupled with GPGPU computing "Supercomputer in a Box" provides you with unbelievable performance gains. Some models can easily achieve over 10,000 X speedups.

"Supercomputer in a Box" also keeps track of usage metrics. These metrics can not only be used to visualize the effectiveness of the system but you can also use them to implement an internal chargeback model. This enables you to charge your users for the computational capacity that they actually consume.

FEATURES

"Supercomputer in a Box" is the result of over 10 years of research and development at Citadel and provides you with:

- Support for both dedicated and scavenge modes
- Support for CPU and GPU based computations
- Easy to use APIs
- Web based runtime GUI
- Historical Usage Reporting

With "Supercomputer in a Box" your applications will run thousands of times faster without your developers wasting time on:

- Multi-threaded coding
- Network programming
- Fault tolerance

SUPPORTS VIRTUALIZED GPUS

Supercomputer in a Box's patent pending technology can provide you with 100s of TFLOPs of computational capacity at a fraction of the cost of a supercomputer while taking up zero data center space.

MORE INFORMATION

For details on features and availability call us at 312-395-4144 or send an email to info@citadeltechnology.com.