COMPAQ

GENIAS Software

High-performance solutions: GENIAS GRD and CODINE on Compaq platforms

Enterprise resource allocation for networked and parallel environments

GENIAS Software GmbH develops and markets applications and tools that run on modern computer architectures such as Compaq Alpha™ and Intel® workstations, servers, and clusters to exploit performance, save manpower, and improve code adaptation. On Compaq high-performance systems, GENIAS Software's Global Resource Director™ (GRD™) resource allocation product and CODINE job management software maximize system efficiency, resource utilization, and computing levels to achieve critical enterprise objectives.

Compaq AlphaServer family

GRD Highlights:

GENIAS Software's Global Resource Director is a new-generation product that supports enterprise goals by allocating computing resources among jobs based on their importance to your organization's mission, thus ensuring on-time completion of critical work and fair resource sharing. GRD policy statements enable data centers to regulate routine resource usage and handle high-priority work according to:

- Relative priority of departments, projects, job classes, and users;
- Relative resource entitlement based on budgeted share and usage over time;
- Relative urgency based on job deadlines.

The Compaq Advantage

Compaq delivers the widest range of systems with leading price/performance to meet your most demanding needs for developing and running technical applications. Today, Compaq offers you the industry's highest-performance UNIX® and Windows NT™ workstations and servers as well as storage, networking, operating environments, and the best support services to handle your most complex tasks. Compaq systems range from single-processor Professional Workstations to AlphaServer™ SMP configurations containing up to 14 processors, including the new, record-setting Alpha 21264.

GRD (continued)

GRD integrates two major components:

The Global Dynamic Scheduler (GDS), a policy-based scheduler that can adjust, in real time, the priority of jobs in or waiting for execution. GDS helps enforce site-specific resource management policies and collects up-to-the-moment resource consumption and system load information.

The CODINE Job Manager, which provides a feature-rich queuing and load-balancing system for heterogeneous computing environments.

CODINE features

The CODINE job management system is designed to optimize operation of all software and hardware resources in a networked environment. The CODINE system enables CPU-intensive applications to take advantage of idle CPU cycles within your network, balancing computing loads and minimizing waiting time for interactive and batch jobs. Its easy-to-use, X11 Motif graphical user interface provides a single system image of all enterprise-wide resources for the user and also simplifies administration and configuration tasks.

CODINE includes:
Resource management to manage memory, disk space, tape drives, software licenses, etc., for each site;

Distributed computing in networks comprising different operating systems and hardware/software configurations;

SMP support for shared-memory, multiple-processor machines;

POSIX 1003.2d compliance for better interoperability;

WWW interface to allow easy PC access across the enterprise;

Checkpointing of jobs, automatically or user-defined, with migration and restart in case of failures;

Fault tolerance with shadow master functionality and a fail-safe communication protocol;

CODINE Application Programming Interface for developing distributed applications and integrated software suites.

Compaq (continued)

Why choose Compaq?

* The Alpha architecture, developed by Compaq, leads the overall HPTC market in revenue, while Compaq AlphaServer systems are moving rapidly toward revenue leadership among HPTC midrange servers.
* Compaq systems support the industry's widest choice of operating systems • Windows NT, Digital UNIX, and OpenVMS • with interoperability and connectivity programs to build seamless, heterogeneous computing environments.
* Compaq VLM64 very large memory technology dramatically boosts database performance on AlphaServer systems.
* Compaq high-performance, affordable uniprocessor and multiprocessor Professional Workstation systems feature Alpha and Intel CPUs and high-resolution PowerStorm graphics for superior speed and 2-D/3-D imaging in CAE and visual computing.

* Compaq StorageWorks products, with high-speed I/O interconnects (HiPPI, FibreChannel™, UltraSCSI), offer the industry's best selection of high-performance, high-reliability magnetic and optical storage media.
* Compaq system interconnect technologies, including ServerNet™ and Memory Channel™, build powerful, clustered AlphaServer and ProLiant™ systems with more than 100 Alpha and Intel processors to solve problems of any size or complexity.
* Compaq GIGAswitch™, MultiSwitch™, and EtherWORKS networking solutions deliver the highest-performance enterprise connectivity, integrating switched Ethernet, Fast Ethernet, FDDI, and ATM.
* Compaq systems have the best price/performance, best reliability, and the lowest cost of ownership of all competing systems, as determined by industry analyst studies.
* Compaq has one of the industry's largest networks of business, technology, software, and channels partners, dedicated to delivering the highest-quality customer solutions available.
* Compaq Services, the world's largest and most respected computing service organization, and Compaq *Custom*Systems deliver, install, and support both off-the-shelf and special solutions around the world.

Compaq Professional Workstation SP family