



KCI
PO Box 1641
Litchfield Park, AZ 85340
(605) 427-2649
Toll Free (800) 694 0236
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KCI employee:

Professional Experience

Thirty years as electrical engineer, system engineer and system architect for large signal processing systems at defense contractor. Five years as system engineering consultant for military contractors and high performance computing (HPC) manufacturers as system architect supporting government procurements and contracts. This experience included: performing technical system architecting, system integration, verification and validation of requirements, high-availability analysis, and supportability and effectiveness analyses for total systems. Analyses were performed at all levels of total system product to include: concept, design, fabrication, test, installation, operation, and maintenance. Ensured customer and product requirements were included in total systems solutions that acknowledged technical, schedule, and cost constraints. I have performed functional analysis, timeline analysis, detail trade studies, requirements allocation and interface definition studies to translate customer requirements into hardware and software specifications. Participated in competitive acquisition process for HPC systems with latest technologies available from vendors such as Cray, IBM, SGI, SUN. Participated in functional architecture design of systems through structured analysis, logical and behavioral modeling.

HPC Engineering Capabilities

Architecting Systems

Architect for state of the art heterogeneous SAN and NAS based signal processing systems with high data input rates and large processing requirements. I participated in architecting, installation, and operation of these systems. These systems are implemented and in operation. I have architected future signal processing systems that are now in the proposal phase and some in the development phase. I can architect new systems that are forward looking, not based on equipment available today, but designed based on future hardware and software.

HPC Acquisition

I participated in procurement acquisition of HPC systems for large government contracts utilizing vendors such as Cray, IBM, SGI, SUN, and Intel or AMD based processing systems. I have supported over five acquisitions of HPC hardware, each in excess of \$10M, which required benchmarking, analysis, costing, and the acquisition process. I have supported six proposals for HPC systems in response to RFP for large government contracts in the last five years.



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Functional Modeling

I have participated in the functional architecture design of several major systems through structured analysis, logical and behavioral modeling: context, dataflow, leveling and balancing, state transitions, threads, and entity relationships.

Timeline Performance Modeling

I have experience with performance modeling and queuing theory. My primary experience is with the Hyperformix (formerly SES) Workbench tool, although the modeling theory applies to any tool. I supported the creation of end-to-end system models for complex systems with multi levels of queues and complex processing requirements. I have experience in bottleneck analysis, such as determining throughput of SAN and NAS systems.

HPC Storage and HSM Systems Consulting

I have experience in HPC storage solutions including heterogeneous SAN and NAS, homogeneous SAN and NAS, tape issues, RAID performance, and Fibre Channel switch issues. I have supported large acquisitions of high performance storage systems for SAN and NAS solutions (heterogeneous and homogeneous).

For more information contact [KCI sales](#) or visit our [website](#).