



OZtech Systems, Inc. develops software products, and provides ASP services, expert consulting, outsourcing, and turnkey solutions to a wide range of clients from well established Fortune 500 corporations to startups. OZtech prides itself on delivering expert consulting services, infrastructure support, and deploying and servicing state of the art network based client-server systems to solve complex business problems. Some of our products include: OZblaze™, a web based system performance analysis tool; OZexpert™ a web based expert system to analyze and detect hardware and software faults; and OZHA™, a highly available cluster system designed to increase system availability, reliability, and uptime; OZconsole™, provides complete console security and message/error, and access logging; OZlcs™, a web based medical Laboratory Compliance System; UniversityLab™ medical Laboratory Tests Results system which enables physicians to view patients' test results over the Internet while accessing multiple laboratory vendors. OZtech's services include: OZconsult™, end-to-end expert consulting services addressing the needs of organizations in today's complex and rapidly evolving business environment; OZworryFree™, delivers turnkey and outsourcing solutions including hardware, software, maintenance, and daily administration.

### OZblaze

To survive in today's competitive environment, organizations need access to accurate information related to: system performance, system sizing, growth needs, and the ability to precisely track system uptime and reliability. Poorly performing or failing systems can adversely impact organization's bottom-line. OZblaze is designed to address performance problems, system sizing needs, report system uptime and reliability, and asset management. OZblaze focuses on all aspects of the computing environment including: hardware, operating system, database, application, network, server and client work loads, and system and database/application uptime. Other commercially available performance analysis tools are expensive and require the hiring of expert performance engineer to evaluate and interpret the data. In contrast, OZblaze doesn't require any capital investment, the reports are presented over the Web, in easy to understand tricolor go-no-go format. Experts and novices alike can easily understand the reports. **Green** – no problems found; **Yellow** - there is room for improvement; **Red** – system problems requiring corrective actions detected.

#### **Features**

To facilitate robust and extensive system analysis, OZblaze gathers data from all necessary sources. OZblaze is based on a flexible and extensible architecture, that facilitates collection of data from all necessary sources. Some of the core features include:

- *CPU utilization*
- *Memory utilization*
- *I/O sub-system utilization and load distribution*
- *Kernel utilization*
- *Network utilization*
- *Database utilization*
- *Database growth rate and space utilization*
- *Application response time*
- *File system growth*
- *Summary of system uptime*
- *Summary of database uptime*
- *Summary of number of users accessing the database*
- *Failure root cause summary*
- *Summary of planned vs. unplanned outages*
- *Asset management*
- *Web based reporting*
- *Tricolor go-no-go reporting*

### OZmagic

OZtech has developed OZmagic to assist customers and vendors in troubleshooting and resolving technical problems, hardware or software. OZmagic is a general purpose data collector that gathers all aspects of system configuration including hardware, software, application and 3rd party product information. OZmagic is automated, easy to use, and requires no training or knowledge of the HW or Unix. The data can be used for multiple purposes. For example, to expediently ascertain the root cause of a system failure, support engineers with access to OZmagic data can precisely and quickly diagnose the problem.

### OZexpert

Expert Systems (ES) has long been recognized as a most valuable tool in service delivery. For example, today ES are used to guide low-tech repair mechanics in the service and repair of complex and highly technical automobile subsystems. Studies have shown that doctors in rural areas utilizing sophisticated ES can deliver accurate diagnosis rivaling that of specialist in well renowned medical centers. OZexpert can be utilized to assist support engineers and administrators to quickly and accurately diagnose system problems. Cost savings can be realized by reducing the overall time it takes to troubleshoot system problems, and by guiding less experienced engineers through the process. OZexpert can be utilized for reactive and preemptive support alike. Preemptive support is the process in which systems are monitored on an ongoing basis to detect potential problems and correct them before a failure occurs. For example, it may become necessary to replace certain hardware components in a deployed systems as a result of a hardware product update due to design improvement, a safety or compliance matter, or a product quality issue that has been identified, diagnosed and resolved by product engineering (eg: replace specific drives reported by the manufacturer to have "known problems", upgrade firmware level, upgrade EPROM's, etc.). However, preemptive activity should not be limited to hardware. It may be discovered that an operating system bug can cause Oracle datafile corruption. To remedy the problem a new patch is developed and made available to customers. In a large install base, the biggest challenge in preemptive support is identifying the effected systems, verifying adequate inventory for defective part replacement, and alerting only the effected customers to avoid confusion and unnecessary anxiety and work. OZexpert includes a global database repository (populated with

OZmagic and OZblaze data), a knowledge base, and the analysis engine. An important capability of OZexpert is the ability to establish trends. Trend analysis can play a pivotal role in customer's and vendor's ability to identify hard to diagnose problems/issues and solve them in a timely and cost effective manner. Trend analysis can also be used to assist in capacity planning, system sizing, and determining future growth needs. For example, it may be desirable to find out what is the average memory, or disk farm size on a multiprocessor system 'model A', or what are the increased utilization/depletion rates of CPU, memory, or storage. Armed with this knowledge, customers can do a better job in forecasting and planning future needs.

---

## **OZHA**

System outages can be divided into two categories: planned and unplanned. Planned outages result from needing to upgrade software, apply new patches, add new hardware, backups, etc. Unplanned outages on the other hand, are caused by physical failure (eg: CPU, memory, controller, disk), software bugs, operator error, etc. OZHA can be utilized to diminish system down time related to planned and unplanned outages. OZHA is simple, easy to maintain, and doesn't require lengthy training. In contrast other Highly Available (HA) systems are complex, require extensive training, are hard to implement, and mostly concentrate on preventing physical failures. Complexity breeds failures related to software bugs, operation complexity, or operator errors. Often, failures resulting from complexity, can outnumber physical/hardware failures.

---

## **OZworryFree**

A complete outsourcing solution which can enable organizations to 'quickly hit the ground running', without needing to expend scarce capital for hardware, software, system administration, or data center facilities. OZworryFree provides an expert end-to-end robust and reliable outsourcing solution, enabling organizations to concentrate on their core business, and eliminate the headache and capital needed to purchase hardware, software, data-center facilities, or hire administrators to maintain the environment.

---

## **OZconsult**

OZtech delivers high-end expert consulting services to its customers. Areas of specialization include:

- **UNIX/Solaris/Database/Applications**

Specializing in Sun HW and related SW products, Databases (Oracle, Informix, Sybase, Ingres), Highly Available systems (HA), Parallel database (PDB), Data Warehouse, Web, and application and hardware architecture and design.

- **Performance Tuning**

Perform all aspects of performance tuning including: application, database, operating system, and hardware. Perform extensive benchmarks and tests to analyze system's performance and potential future growth. Evaluate and test system's performance to establish best price/performance configurations.

- **System Administration/Maintenance**

Perform all aspects of system administration and maintenance (HW, Operating System, and database) including: disaster recovery and planning, maintenance and "lights-out" operations. Perform full system audits and validation including Solaris

(patches, packages, etc.) and HW (firmware, revisions, etc.) analysis, and extensive system diagnostics and stress testing.

- **Right-sizing/Architecture Design**

Architecture development and design, including application, database, hardware, and all aspects of increased system availability and performance for mission critical environments. Establish right-sizing strategies, develop plans for migration from proprietary systems to cost effective open/client-server systems. Architect systems with emphasis on high performance, reliability, and low maintenance. Provide costing, system sizing and short and long term growth plans. Demonstrate proof of concept through rapid prototyping and performance testing of the system.

---

## **OZconsole**

The role of the system console in troubleshooting hardware and software problems, and carrying out sound security is overlooked many times. Often, vital error messages are lost as a result of the system's inability to log them. Typically, the last error message preceding a system crash will be displayed only on the console. The loss of vital error messages can lead to misdiagnosing the root cause for system failure. Dumb terminals or monitors are frequently used as console devices. Unfortunately, the use of such devices would invariably lead to loss of vital error messages. Furthermore, such devices cannot log console access activity, and can lead to system failure. Another challenge in analyzing console error messages is timing, i.e. the need to know when an event occurred. Console security is another area that needs to be addressed. With unprotected console access, users can halt a system even without knowing the root password.

OZtech has developed OZconsole to address all of these issues and problems. OZconsole provides a console trace log facility, and simultaneously enables safe and secure console access.