



Data Sheet

Solaris Upgrade Case Study

Solaris E10K to SF15K Migration

❑ The Situation

As the performance needs of our clients change, it becomes necessary for these clients to acquire updated hardware platforms and infrastructures. In most instances, a hardware improvement can be limited to certain components, thereby limiting the impact to the underlying operating system and applications. In other cases, the necessary upgrade involves a complete technological makeover. These instances require a more delicate touch.

❑ The Challenge

When a Canadian government department decided to migrate additional projects to its aging Enterprise 10000 platform, they discovered that additional horsepower and storage would be necessary. The hosted applications were mission-critical to the department, and were engineered to be highly available. Using a 4-stage development methodology, the architecture comprised a total of 14 domains spread over two main sites.

Based on a complex installation of Apache, WebSphere, BMC, and Tripwire, it took over a year of effort to complete the configuration of all domains when they were originally installed. Re-installing from scratch onto a new hardware platform was out of the question. Also, because of the difference in hardware architecture between the Enterprise 10000 and the Sunfire 15000, a simple backup and restore solution could not be considered.

An aggressive migration timeframe was the least of the challenges presenting TrekLogic, the chosen migration partner. Being a mission-critical system supporting 24/7 operations, the transition had to be accomplished with zero downtime. The fact that both the department and the provided applications were highly visible was also notable.

❑ The Solution

Project planning and precise proof-of-concept stages were critical factors in the success of this project. A step-by-step recipe was created and extensively tested on a realistic simulation of one domain. This recipe was tuned to the specifications of each domain to be migrated. The proof-of-concept stages showed that domains could be brought over to the new hardware platforms with minimal changes to the operating system, and no changes to the applications, but only if certain steps were followed precisely. TrekLogic worked closely with all levels of Sun Microsystems' technical experts to achieve this. All migrations occurred outside of core hours, and a rigorous operational checklist was followed to ensure that all production elements remained highly available. The client was responsible for providing the essential pre-migration and post-migration tests, and acceptance milestones were defined in detail. Production clients saw no downtime whatsoever.

❑ The Result

The migration of the customer's system to the Sunfire 15000 was accomplished with resounding success:

- ❑ The TrekLogic team completed all domain migrations within the attributed time windows.
- ❑ The department was able to prevent disastrous shortfalls of re-installing the complex arrangements of applications onto a new platform.
- ❑ The implementation of a faster, more scalable system allowed the department to add applications and domains to its clients.
- ❑ The high availability of the architecture was preserved and improved at a hardware level.

