

COUNTY OF SANTA CLARA

ORACLE DATABASE 10g ON SUN

Key Features

- Oracle Database 10g and Solaris™ 10 OS running flawlessly together
- Oracle on Sun Fire™ V440 servers with UltraSPARC® IIIi processors as basis for new tax system
- Excellent stability, with no need to reboot for months at a time
- No security issues, without the need to install patches and upgrades
- Consistently outstanding support

Because of its record of success using Sun and Oracle technology, the County of Santa Clara in California chose these two industry leaders to provide the platform and database for its new tax collection and apportionment system, which will replace the antiquated system currently in place.

The county wanted solutions at the leading edge of technology, and therefore tested Oracle Database 10g on Sun servers running the Solaris™ 10 Operating System. The system has performed flawlessly for months, confirming the county's decision to employ the combination as the foundation for its new solution.

The County of Santa Clara, the heart of California's Silicon Valley, is unique because of its combination of physical attractiveness and economic diversity. With its many natural amenities and one of the highest standards of living in the country, the county has long been considered one of the best areas in the United States in which to live and work.

Few would argue that Santa Clara is the technological capital of the world. Despite this, however, the county's tax collection and apportionment is based on a 40-year-old mainframe and COBOL system that was developed before many of its users were born. Through a series of misfortunes, several attempts to replace it over the last two decades failed. During the prolonged period when the system was growing more outdated and difficult to maintain, its tax management burden grew greater and greater due to swelling population and economic growth. It has now reached the point where the system handles the processing of 850,000 property tax payments annually totaling \$3 billion.



Determined to avoid the pitfalls that doomed previous attempts to bring the system up to date, the county recently developed a plan to create a Tax Collection & Apportionment System (TCAS)—a project that will consume \$10 million over the next four years. The investment will be well worth its cost, since the new system will combine enormous efficiency and supportability improvements with reduced risk of uncollected tax revenue and greatly improved service to taxpayers.

Sun technologies form basis for new tax application

Under the TCAS plan, the county is using its own internal resources to develop new state-of-the-art tax system application software. The environment that the county selected is Java 2 Enterprise Edition (J2EE™), and the platforms are Sun Fire™ servers employing the Solaris 10 Operating System and the Oracle Database 10g. “For many years now, we’ve been choosing Sun more and more for needs throughout county government, and we’ve invariably been pleased with our choice,” said Bruce Overoye, Director of Information Systems for the Tax Collector’s Office. “Stability has always been a Sun hallmark, and it just keeps getting better and better.”

“Another standout Sun quality is security, which is especially important in the tax business we’re in,” Overoye continued. “The Solaris OS does such a good job of protecting against worms and viruses that we don’t have to worry about securing the system ourselves. On the mainframe, by contrast, there are security updates we need to install daily or else we know we’ll be at serious risk. Memory leaks that are so common with other systems just don’t happen with Sun, and we almost never need to reboot.”

“One of the aspects of working with Sun that really stands out for me is the support we

get,” added Frank Baldeverona, Information Systems Manager. “Whenever I need a part, for example, I call and there’s always someone from Sun on the phone immediately who makes sure I have the part within hours. Sun’s response time is incredible.”

Oracle, the ideal match for Sun

The project team knew that many other counties had chosen Oracle as the database for their tax collection systems. But that was just one of the reasons why Santa Clara made the same choice, as Overoye explained: “Once we’d reached the decision for Sun, Oracle just made all the sense in the world. Together, they provide the scalability to accommodate the growth we foresee, and there’s never a concern about how well they integrate with each other or with third-party software. With other platforms, we’ve had some unhappy surprises trying to bring up various applications. But with Sun and Oracle we’ve never had that kind of an issue because of all the third-party software testing that takes place.”

“Again, I’d cite support as a big reason for selecting the Sun and Oracle combination,” said Baldeverona. “There’s never any finger-pointing between them that requires us to be the referee. Both companies feel responsible for the system as a whole, and they work together behind the scenes to resolve any issue that arises. We’re in this for the long haul, and they’ve demonstrated that they are too.”

Letter-perfect stability with Oracle Database 10g on the Solaris 10 OS

Just choosing Sun and Oracle was not enough for Santa Clara. They also wanted to select the most advanced technologies these partners have to offer, but not before giving them a thorough test. Therefore the county downloaded and installed Oracle Database 10g—an easy process that took just half a day—and

set up an instance where it runs on an UltraSPARC processor-based Sun server under control of the Solaris 10 Operating System. The team then started up several applications that have run on this test system for over three months.

Overoye reported on the results: “The stability and reliability of Oracle Database 10g on Sun have been outstanding. There just haven’t been any issues. The only reason we’ve ever had to reboot the system was a power failure. With a prior system we had to reboot twice a day.”

Because of the success of all this testing, Santa Clara firmed up its decision to base the new system on the Solaris 10 OS and Oracle Database 10g. For servers, the plan is to employ Sun Fire V440 servers because of their performance, their rack-mountability, and the fact that they use UltraSPARC IIIi processors. The backward compatibility of UltraSPARC processors has proven vitally important to the team, who finds that applications purchased fifteen years ago still run on the latest generation of these Sun engines.

“We’re looking forward to taking advantage of the new powers of Oracle Database 10g, such as its easy manageability, self-healing features, and reduced need for database administration,” said Overoye. “Likewise we’re so excited about the Solaris 10 OS that we’re pushing to have it adopted not just for the tax system but for all our Sun systems here in county government. The Solaris 10 OS and Oracle Database 10g are the latest and best versions from Oracle and Sun, produced under their long-term roadmap that we’ve come to count on. Our testing shows that they run just as well together as they do on their own, and so we highly recommend them not just around here, but in general.”