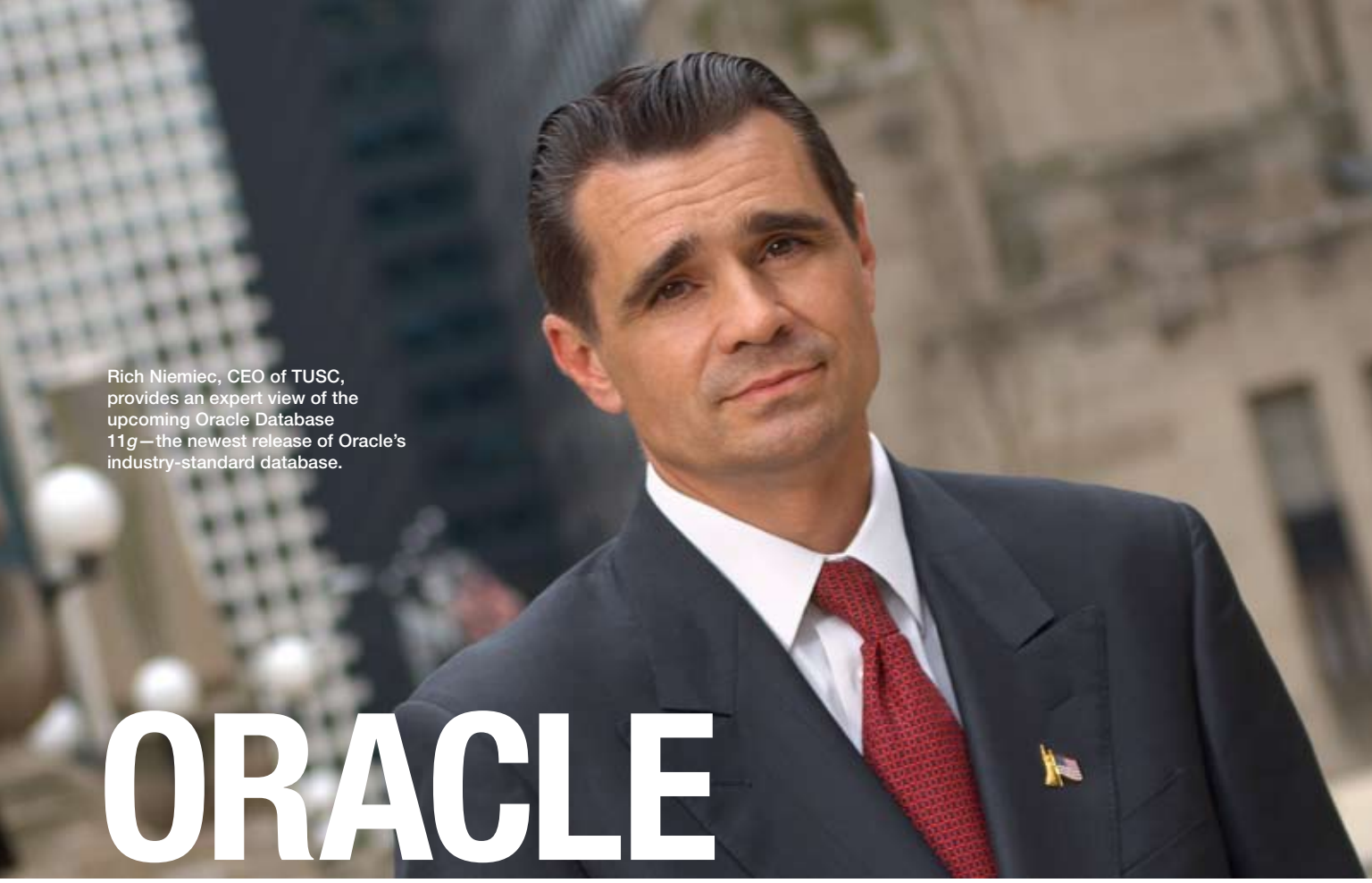

Rich Niemiec, CEO of TUSC, provides an expert view of the upcoming Oracle Database 11*g*—the newest release of Oracle's industry-standard database.

ANDREA MANDEL

ORACLE DATABASE 11*g*

THE FUTURE OF YOUR BUSINESS

BY JEFF ERICKSON

In 1987, Rich Niemiec came to Oracle to help build the client-server system on the Oracle6 database. He went on to become a leading advocate and expert on Oracle technology, writing several Oracle best sellers including 2007's *Oracle Database 10g Performance Tips and Techniques* (Oracle Press). Niemiec is also the former president of the International Oracle User's Group (IOUG) and current CEO of TUSC, an Oracle database and Oracle E-Business Suite partner that has been on *Inc. magazine*'s list of the 500 fastest-growing privately owned companies. Anticipating the introduction of Oracle Database 11*g*, *Profit* spoke with Niemiec to get his insights into Oracle's new flagship database and why it makes sense for businesses to choose it.

PROFIT: You've spent time under the hood of Oracle Database 11*g*. What are your impressions?

NIEMIEC: I'm excited about Oracle Database 11*g* because I think it manages business systems that are yet to come. The amount of data continues to grow while the pace of change accelerates. We'll need systems that give us a way to visualize and manage huge data loads. We'll need systems that help us meet that change with confidence. We'll need systems that have the intelligence to manage themselves to some degree. Oracle Database 11*g* is expected to do all these things.

PROFIT: You say future databases must manage huge amounts of data. How huge?

NIEMIEC: I calculated that the top 1 million enterprise databases in the world today hold a total of 3 exabytes of data, which is 3 million terabytes. In one Oracle 11*g* database, you can expect to be able to store 8 exabytes. So on *one* Oracle database that would mean you could store the top 1 million company databases in the world, right now. That's the planned capability of Oracle Database 11*g*. Of course, the hardware to hold it isn't there . . . yet.

PROFIT: Why would a CEO, CIO, or CFO care?

NIEMIEC: The absolute power of the Oracle Database provides them with a business advantage over their competitors. Being able to store and update records quickly, with all the data that you could ever store in your system, and every partner you ever had storing their data in your system, and doing it quickly, is what gives Oracle a huge advantage over other systems.

We'll need systems that have the intelligence to manage themselves to some degree."

—Rich Niemiec, CEO, TUSC

PROFIT: How does Oracle Database manage all that data and continue to stay so fast?

NIEMIEC: Oracle has a lot of capabilities in that area, but I'll illustrate with one special component of Oracle Database called the optimizer. The optimizer is one of the key pieces of Oracle Database that makes it great. What the optimizer always asks, every time you search for data, is, "How should I access that data to make it fast?" With every search, it learns and fine-tunes the fastest way to retrieve that data. It's the most complex part of Oracle Database, and it's probably 10 to 15 years ahead of any other database. The optimizer is what's making all those great decisions for you that make your system fast. As the amount of data continues to grow, it's going to become more and more important.

PROFIT: What about talk that you hear about competition from open source technologies?

NIEMIEC: Oracle has so many advantages when you look at the complete solution. It has features like Oracle Flashback Database for recovering from mistakes, Oracle Data Guard for disaster recovery, hot backups that are well ahead of the competition, online redefinition of objects like indexes, Oracle Real Application Clusters (Oracle RAC), which has not been replicated and will not be easily copied at the interconnect level, Oracle Grid Control features that expand the benefits of Oracle RAC, mature parallel processing to improve performance, and the optimizer functionality that, again, borders on artificial intelligence in its levels of sophistication—and we expect it to be even better in Oracle Database 11*g*.

I remember asking Bruce Scott, who was the first employee ever hired by Oracle, if he thought that open source would ever catch up with something like the Oracle or [IBM] DB2 databases. He said, "No, it's never going to catch up, because a database is much more complex than an operating system. And of the handful of people that are capable of writing a great optimizer, none of them will do it for free, because it would take too many years."

PROFIT: What's your favorite new feature in Oracle Database 11*g*?

NIEMIEC: I would love to tell you about my top *20* features, but let me just tell you about one. It's a feature that would allow you to capture and replay system workloads, and it might be the best thing planned for Oracle Database 11*g*. People are constantly making changes in their data centers: implementing migrations and upgrades and changing hardware, operating systems, and applications. They've needed a way to ensure consistent or better behavior when they make these changes. Oracle Database 11*g*'s workload capture and replay feature would do this.

Workload capture and replay is planned to be a simple menu-driven way of capturing a system's workload over time and then replaying it precisely in the same manner as it was captured. You would be able to capture workload for a minute, an hour, or for several days so when you make changes in your system, you could test your real day-to-day application workloads against the new system. You would be able to make changes with confidence.

PROFIT: How will the new release affect Oracle Applications users?

NIEMIEC: Most of our work at TUSC is with Oracle Applications. I look at it this way: In the database world, Oracle has always been first. Now on the application side, I look at Oracle acquiring PeopleSoft, JD Edwards, Hyperion, Retek, Siebel, and more. You're watching Oracle succeeding at the deepest levels at making its applications and database infrastructures work together for customers. I don't think they're going to be caught for 10 to 20 years on the business side. On the security side, they acquired Oblix—literally the best product out there for identity management.

PROFIT: Any other thoughts on Oracle's recent acquisition activities?

NIEMIEC: I've never seen Oracle caught from behind over the past 20 years, and right now I think they're extending their lead. Take a company like SAP: 67 percent of SAP runs on Oracle Database. They're not acquiring all the pieces that Oracle is acquiring. They're not acquiring the security capabilities. They're not acquiring all of the failover capabilities. They're not acquiring the disaster recovery technology. All these things make a customer's business stronger, and they're all beginning to come from Oracle. Oracle Database makes SAP a better product. Much of what makes SAP a viable business product is Oracle Database underneath the hood. With the capabilities that we expect to be available in Oracle Database 11*g* underlying all these critical business and technology functions, it is really overwhelming.

PROFIT: Any final thoughts on the technology underlying the database?

NIEMIEC: Oracle is really more than a database. It is much more of a platform. It's clustering technology, failover technology, disaster recovery technology; it has Grid Control to handle grid systems and manage service-oriented architecture, right out of the box. It has features to automatically tune the system and automatically send alerts. So it's self-healing and self-alerting. It's online for better availability. It's all those surrounding products that provide even greater benefits to Oracle users. And with Oracle Database 11*g*, you can expect to manage change like never before. <>

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