SUCCESSFUL DATABASE EMBEDDING IN AN ENTERPRISE APPLICATION

ORGANIZATION

A major tax solution company

CHALLENGE

The challenge was to create an enterprise installer that seamlessly installs the third party database server (Oracle® 10G R2 Enterprise Edition), does appropriate configurations, and creates the application schema. The deployment needed to be easy and seamless, working well with the application installation process and conforming to existing standards. Additionally, the database configuration should be optimized to handle exponential growth in usage and data size. And, the day-to-day administration would need to be minimal since there would be either limited DBA expertise or no on-site DBA to manage the database.

SOLUTION

A database solution was developed to embed an Oracle database with their enterprise application. This not only improved the bottom line for the company, but also added value to their customers by reducing costs, improving application performance, and removing the need to have a specialized skill set in house to manage the data and application.

KEY COMPONENTS

OPERATING SYSTEM

Windows® 2003 Server Edition SP1
Red Hat® Linux Enterprise ES 4

DATABASE

Oracle® 10G R2 Enterprise Edition/Oracle Instant Client 10G

XTIVIA developed an installer utilizing InstallShield Multi-platform version 11 which is fully Java-compliant, thus allowing the same InstallShield project code to be utilized to create platform-specific launchers. The installer encapsulates the functionality of collecting user preferences and projected application usage in terms of transactions per day. The installer also allows users to choose the locations for database binaries, data and backups. The user can choose certain features provided by the database vendor (Oracle), making it a truly customizable, scalable and automated database installation with minimal day-to-day administration needs.

XTIVIA developed the entire product, from requirements collection to user acceptance testing. The combined utilization of Oracle 10G R2 and InstallShield is fairly unique and as such, very little information is available about it. Despite this, XTIVIA was able to deliver a high quality product with a substantial feature set, on time, using in-house talent. Some of the features made available by the installer are detailed below.

The installer collects information from the end user regarding the following items:
• Location for Oracle binaries
• Location for Data
• Location for Flashback recovery area
• Features such as RMAN, ASM and OFA
• Transaction volume per day

This information is then used to customize a silent Oracle database installation. The database is installed utilizing the locations specified by the user. Based on the database features selected by the end user, database configurations are performed silently as well.

The transaction volume specified by the end user is then used to configure and optimize various database parameters such as memory and disk space usage. Based on the transaction volume and standard growth equations, table spaces are created and CPU and memory resources are allocated.

The end user can install Oracle Instant Client along with a set of database maintenance utilities to facilitate the day-to-day management of the database if necessary. The user can use SQLPlus to connect to the databases and run queries. The Oracle Enterprise Manager web utility is also configured and ready to be used for easy access to all database administration functions and performance monitoring of the database.

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RESULTS

With the product developed end-to-end by XTIVIA, the tax solution company will now be able to reduce technical support hassles, increase revenue through additional sales and a broader offering that reaches more customers, and add value through a feature rich, fully optimized, automated, turn-key solution.

XTIVIA's database embedding solution has effectively and efficiently delivered a strategic business advantage to this customer.

XTIVIA OVERVIEW

Since 1992, XTIVIA has established a proven, global reputation as a company delivering cutting-edge professional solutions to our clients' specific requirements, regardless of the complexity of the projects. XTIVIA's success has stemmed from a proven ability to deliver quality professional services, allowing the client to leverage technology successfully, competitively, and profitably. XTIVIA has received additional awards this year from Liferay, CIO Review and Inc. 5000. XTIVIA has offices in Colorado, New York, New Jersey, Missouri and Texas.

DATABASE OVERVIEW

XTIVIA is at the forefront of a new generation of information technology services companies focused on value, speed of delivery and high-performance technology solutions. We combine people, business process and advanced technology in a comprehensive set of IT services.

Our database management team is comprised of seasoned professionals who possess the business background, project management experience and technology expertise to deliver business-critical technology solutions. These solutions include a variety of platforms, devices and networks, including integration with legacy systems, development of business applications and web-based functionality.

XTIVIA's database services can be customized to meet the unique needs of your business. Our knowledgeable staff of database experts is available for long-term or short-term assignments to meet your database needs.