# Oracle *at* Work

with the U.S. Department of Defense

"The Oracle7 database and Oracle Human Resources applications running on our multiprocessor systems will contain complete personnel information on over two million people. I don't know of any other human resources system that big."

-Jim Densberger, technical director, Air Force Personnel Center



It's hard to imagine any organization conducting a more thorough and rigorous evaluation than the one used by the U.S. Air Force and the Department of Defense in selecting software for their human resources (HR) function. Over an 18-month period, they ranked potential vendors on criteria such as market presence, product support, and experience in large applications; visited a dozen companies that have installed and are working with a variety of products; and scored software on a long list of weighted factors, such as functionality, technical attributes, extensibility, and cost. At the end of the process, the software vendor they chose for the world's largest HR application was Oracle.

# **Key Selection Criteria**

The Oracle7 database and Oracle HR applications will serve as the platform for the new Department of Defense (DoD) Civilian Personnel Data System and the U.S. Air Force's Personnel Data System. The new civilian system, based on Oracle<sup>®</sup> Universal Server,<sup>®</sup> will replace a mainframe legacy environment that has been storing civilian DoD personnel information since 1976. "It was an expensive, character-based, proprietary system that had reached the end of its lifespan, especially on the hardware side," says Jim Densberger, technical director, Air Force Personnel Center. "The Oracle system will save us money, has an easy-touse GUI interface, and is completely open. It's a system that positions us for the future."

In selecting the system, evaluators focused on flexibility, scalability, and compliance with DoD standards.

The Oracle Human Resources software is flexible enough to allow the DoD to adapt it to existing business process rules. For example, the ad hoc query capability can be extended easily to meet the requirements of the DoD's homegrown query system, which has been built and refined over 20 years.

The Oracle database software, Densberger says, has demonstrated its scalability by running as reliably on large symmetric multiprocessor (SMP) platforms as it does in the smallest client/server environments. In the DoD's complex computing environment, the proven scalability of Oracle software was a key product attribute.

# **Business** Profile

The U.S. Department of Defense is an executive department of the U.S. government. Its functions are to support and defend the Constitution of the United States; ensure, by timely and effective military action, the security of the United States; and to uphold and advance the national policies and interests of the United States. The department employs nearly 800,000 civilians, whose personnel records will be managed by the Oracle-based system.

# Solution Snapshot

### Primary use:

Manage military and civilian personnel records for the U.S. Department of Defense and the U.S. Air Force

### Hardware:

NCR 3600 clustered symmetric multiprocessor (SMP) system, HP T500 SMP, Hewlett Packard 9000 K-Class servers, 486- and Pentium-based PCs

### Oracle products:

Oracle<sup>®</sup> Universal Server<sup>®</sup> Oracle7<sup>™</sup>, Oracle Human Resources<sup>™</sup> Designer/2000<sup>™</sup>, Developer/2000<sup>™</sup>

Services:

Oracle Services consulting

# Benefits

- Manages all aspects of personnel life cycle
- Reduces costs through client/server architecture, improves the efficiency of business processes, and reduces training and documentation costs
- Enhances connectivity to other information systems



So was the fact that Oracle7 and the HR applications comply with DoD standards published in Technical Architecture for Information Management—the "bible" for government information systems compliance. "We're committed to meeting those requirements," Densberger says, "because doing so helps us integrate our systems and exchange data with a wide range of other information systems."

# A Responsive Business System

Oracle7 and the HR applications will manage all aspects of employee records for the DoD and the Air Force, including job skills, training history, benefits tracking, and dependent history. The software manages the entire recruitment cycle, designs organizational business models, and performs compensation administration.

"The Oracle-based system will enable us to respond more efficiently to the personnel business information needs of the DoD and the Air Force," Densberger says. "We need to fill jobs, put the right person in the cockpit of a plane at the right time, and plan personnel contingencies for situations like the one in Bosnia. We expect to add new capabilities and do an even better job with this new system."

# More Than 20,000 Connections

The civilian and the military systems will each use large SMP servers running Oracle7 as a central data repository. Linked via wide-area networks to those servers will be up to 400 new Hewlett Packard servers from the HP 9000 K-Class family, which in turn will be connected through Ethernet or broadband local-area networks to thousands of 486- and Pentium-based desktop PCs. The civilian system will be deployed at approximately 350 sites, and the military systems of more than 100 active duty, reserve, and/or Air Guard installations, most of which are Air Force bases. Densberger estimates there may be as many as 25,000 connections to the total data system.

Each HP server will contain a subset of the central database, consisting of records for the personnel assigned to a specific location. A "role-based" security function in effect throughout the system determines levels of authorized access for each user and the changes they are authorized to make to records. Some changes will automatically refresh the central repository; others will be filtered through a coordination module to receive the necessary approvals before being passed on to the repository.

### A Development Partnership

The DoD and Oracle will work together to create extensions to the database and HR modules, and to integrate applications developed using Oracle's Developer/2000 and Designer/2000 client/server toolsets. Oracle Services consulting will modify the framework of the system while DoD technical staff will create the implementation segments.

"We did a 'gap analysis' by comparing the Oracle applications with our requirements," Densberger says. "Reverse engineering our processes and comparing them to the HR products revealed the gaps between existing HR functionality and our requirements. Our job now is to develop the software to fill the gaps."

Allowing adequate time for the development process means the target implementation date for the military system is October 1997; for the civilian system, the date is March 1998.

Densberger calls the partnership between the DoD and Oracle unique, and sees it as a model for the future. "We're not simply buying an off-the-shelf product," he says, "we're cooperating with Oracle on enhancing their application so that it meets our specific needs. When we're done, the Oracle HR software will have even greater appeal for a range of other government agencies."

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