Oracle *at* Work

with Direction General des Impots

"The automation of our local tax centers will help us to better serve taxpayers by making most of their tax information available online and in real time."

—Pierre-Yves Letournel, Director of Fiscal and Tax-Information Systems, Direction General des Impots

Developer/2000: Oracle's second-generation client/server development tool suite.

Taxes may be inevitable, but France is proving that the endless drudgery and paperwork associated with them doesn't have to be. In France, one agency—Direction General des Impots (DGI)—calculates and/or collects all taxes, including income taxes, property taxes, habitation taxes (based on where a person lives rather than the property that person owns), business taxes, and value-added taxes (VATs) on purchased goods. In 1990, DGI began to standardize on Oracle databases and application development tools to handle all of the information management, record keeping, and forms revisions for the country's personal- and business-tax systems. By the end of 1997, more than 40,000 tax agents will be using new Oracle-based systems to process taxes, respond to queries, and handle disputed returns in a user-friendly, platform-transparent, flexible client/server environment.

A Taxing System

With a population of over 58 million, France needed a system that would give agents at the 2,000 local agencies quick access to regional information so they could handle taxpayer requests efficiently. In addition, the French government enacts changes to the tax law every year, so DGI needed tax-calculation software it could modify quickly to allow the processing of tax returns in the early months of the following year. So, in 1992, DGI began to reengineer its mainframe-based information architecture to form a three-level system for processing tax documents at local tax centers.

At first, DGI used Oracle Forms 3.0, SQL*Plus, and SQL*Menu to rewrite its applications, and is now using Oracle's second-generation application development tools, Developer/2000 and Designer/2000. DGI's application-development project—the largest in the world to have been standardized on Oracle tools—includes ILIAD (Information de L'Inspection D'Assiette et de Documentation), FIDJI (Fichier Informatique des Donnees Juridiques sur les Immeubles), and BDRP (Base de Donnees des Redevables Professionnels). By 1997 the rewritten applications will run on more than 1,000 UNIX

Business Profile

Direction General des Impots (DGI) is the French agency that calculates and/or collects all French taxes. DGI has almost 2,000 local agencies and 17 regional information-processing centers throughout the country. DGI's more than 40,000 tax agents process over 50 million tax documents and deeds every year.

Solution Snapshot

Primary use:
Processing tax documents and responding to taxpayer requests for information.

Hardware:
Bull Mainframes, IBM 3090s running MVS, Hewlett-Packard HP-UX servers, and PCs

Oracle products:
Developer/2000,™ Designer/2000,™ Oracle Forms,™ SQL*Plus,® SQL*Menu®

Benefits

- Allows DGI to better serve taxpayers with online, real-time tax information
- Enabled DGI to realize a return on investment within the first year of use
- Allows DGI to reengineer its mainframe-based information architecture
- Provides a standard, easy-to-use interface that speeds tax processing

servers connected to over 25,000 PCs, which more than 40,000 tax agents will use to process in excess of 50 million tax documents and deeds every year.

The ILIAD Odyssey

The first application suite DGI rewrote was ILIAD, which permits the country's local tax centers to keep declarations for income and habitation taxes up to date. Originally, DGI wrote ILIAD in COBOL, because at that time UNIX application-development tools weren't sophisticated enough for the job. Beginning in 1990, DGI rewrote ILIAD using CASE, Oracle Forms 3.0, and SQL*Menu. In February 1993, DGI simultaneously installed the rewritten ILIAD in 350 of its tax centers.

Since July 1995, ILIAD has been available at 850 of the local tax centers; now 18,000 tax agents use the system. The rewritten system is two-and-a-half times faster than the earlier system, and DGI estimates that having two to three local tax centers share one server has saved the agency about 18 million French francs in hardware expenses since March 1993. In addition to improvements in price/performance, ease of use, and ease of maintenance, the new ILIAD helps DGI offer better service at its tax centers.

"The automation of our local tax centers will let us better serve taxpayers by making most of their tax information available online and in real time," says Pierre-Yves Letournel, DGI's director of fiscal and tax-information systems.

Developing BDRP and FIDJI

BDRP and FIDJI both served as beta sites for Developer/2000 and Designer/2000. The BDRP project will eventually be rolled out to 850 business tax centers throughout France and be used for the more than three million businesses that file professional taxes and pay VATs. Regional tax centers collect the information for these taxes and transmit it to the local centers, where the files are updated. The BDRP application manages the fiscal requirements for every business that pays VATs, professional taxes, or both. It also processes advance payments, notifies businesses that are in default on their taxes, and produces statistics on business taxes.

Also in 1995, developers began coding FIDJI, a project to automate the collection and filing of land-registry deeds, including titles and other documents about property rights. French law dictates that many of these documents be kept on file for 50 years, and other documents be must be kept on file until there is a change of ownership, meaning that each of the 363 land-registry centers throughout France must keep about 500,000 paper forms on file. As the land-registry centers become automated, FIDJI applications written with Developer/2000 will manage files and legal documents.

Keeping Up With Change

To fulfill its dual mission of collecting public revenues and delivering information as quickly as possible, DGI must develop all of its applications on a grand scale and adhere to stringent requirements. "We need stability in our development environment, even though it's very difficult for us to achieve," Letournel says. "Each time one of our hardware suppliers makes a change to its central processor or operating system, we are obliged to make the changes. When you have about 660 different UNIX machines as we do for the ILIAD project, this is no easy task."

To that end, DGI relies on Oracle to keep an aggressive porting schedule for multiple platforms. Oracle must also keep up with changes brought about by any of DGI's suppliers so that the tax agency can take full advantage of hardware advances almost immediately.

"We can't change our installed base every two or three years," the director points out. "It's up to Oracle to maintain portability for us."

DGI initially decided on a distributed architecture more than three years ago. "At that time, we felt we had taken a big gamble by going with a client/server architecture and Oracle tools," Letournel says. "Three years later, we have the perspective to know we made the right move."

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