Oracle *at* Work

"Without the structured approach and CASE tools Oracle Services brought to this project, I don't believe

we could have designed, built, and implemented such a complex business system in just one year."

—Janet Bardyn, Project Director, NYNEX

Oracle Services

The problem for NYNEX in the early 1990s wasn't a lack of information about its engineering and construction activities—it was 25,000 diskettes worth of information that was inconsistent, out-of-date, or inaccessible to everyone but the field employees who had entered it on standalone personal computers.

The corporate MIS department knew the company had outgrown the PC-based systems it was using and needed to design and build an enterprise-wide, networked system for tracking and sharing information. Given that Oracle Corporation already supplied the corporate standard relational database, and given the multiplatform, multivendor computing environment at NYNEX, the company's choice to work with Oracle Services and make Oracle7 the foundation for the new system was a natural one.

Building ECRIS

To design and build the new Engineering Construction Records Information System (ECRIS), NYNEX and Oracle Services formed a joint project team. NYNEX supplied subject matter experts on telecommunications engineering and construction,

while experts from Oracle Services used Oracle Developer/2000 and Designer/2000 tools to develop, prototype, and build NYNEX's application. "Oracle Services helped us understand the technology and adopt a structured methodology in analyzing our systems and designing a new one," says Janet Bardyn, NYNEX project director, Outside Plant Engineering and Construction Systems. "Their methodology helped us decide how to build this system."

The ECRIS system enables NYNEX to track, update, and share such information as prices, worker schedules, and time and material reporting for telecommunications construction jobs. The information will reside on 16 servers located at Strategic Business Unit sites in NYNEX's service territory. The design/build field staff will enter data in the program's 160 tables on client PCs at 70 "Control Center" sites and access the servers via a TCP/IP network.

The system is already operational on two of the servers, which serve three of the Control Center sites. NYNEX has also established a schedule to eventually bring all 2,000 planned users onto the system.

NYNEX used the forms component of Developer/2000 to create some 90 easy-to-use GUI screens, and the reporting module of Developer/2000 to create formats for 50

Business Profile

NYNEX provides a full range of communications services in the northeastern United States and selected markets around the world. The company has expertise in telecommunications, cable television, directory publishing, video entertainment, and information network and delivery services.

Solution Snapshot

Primary use:
Tracking engineering and construction projects

Hardware:
IBM RISC System 6000 UNIX servers; 486-based PCs running Microsoft Windows as clients

Oracle products:
Oracle7,™ Developer/2000,™ Designer/2000™

Services:
Oracle Services consulting

Benefits

• Improves productivity of engineering and construction staffs

• Shortens cycle time from receipt of order to finished work

• Integrates Engineering, Construction, and Accounting databases

• Increases accuracy of records

• Improves access to critical data for geographically distributed sites

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standard reports. The new system also incorporates more than 200 procedures, functions, and triggers—Oracle7 features that automate processes and enhance functionality.

"In my 20 years of MIS experience," Bardyn says, "I've never seen a major systems project that affects three critical corporate functions—construction, engineering and accounting—go so smoothly and be completed so quickly. It wouldn't have happened without the Oracle structured approach and the CASE tools we used to define high-level requirements and translate them into detailed design specifications."

Recapturing Half a Day

The new system solves a range of problems and turns information into a strategic advantage for NYNEX. "We expect the system to dramatically increase engineering and construction productivity, in part by eliminating time previously spent finding current prices, verifying job schedules, and checking availability of materials," Bardyn says. "Our

studies show we'll be able to recapture half a day of what is now non-productive time over the course of a typical job."

The system automates the current practice of completing and submitting paper reports that enable the accounting department to revise the asset status of construction materials. As employees log time spent on a project, ECRIS will automatically update accounting records, saving NYNEX time and money.

The system also solves the problem of inconsistent reference data. "ECRIS captures data once, then replicates it on each of the 16 servers," says Kevin Kinnally, project director, Oracle Services. "That gives the staff at each site immediate access to the same up-to-date data on prices, materials, and standard time increments for work." Transaction data entered locally at the 70 Control Center sites is replicated on a regular basis to one of five Market Area databases, providing a backup system in case one of the 16 servers goes down.

Adding Mobility

NYNEX's vision for the future includes mobile computing for its construction technicians. "We'd like to see them recording time and material data in a handheld, wireless device, and transmitting the data from the field directly into the ECRIS database," Bardyn says. "Establishing the link and the information flow between the engineering/construction and accounting functions is the first phase. The next will add mobility."

The road from diskettes to mobile computing may seem long, but NYNEX, with technology and consulting services from Oracle Corporation, is prepared to cover it in a very short time.

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