



PACIFIC DATA MANAGEMENT, INC.

## CUSTOMER PROFILE

### The Challenge

When the Federal Communications Commission (FCC) implemented a new system of auctioning PCS licenses to telecommunications companies, Sprint faced a challenge: to succeed in purchasing the licenses of its choice, it needed a system that could track all bids and immediately make sense out of the data. The system had to print detailed reports that showed which telecommunications companies were bidding, how much they were bidding, and what areas they had already purchased. It also had to map bidding data so Sprint could easily see which companies were vying for which geographical areas of the United States and plan its own PCS business accordingly.

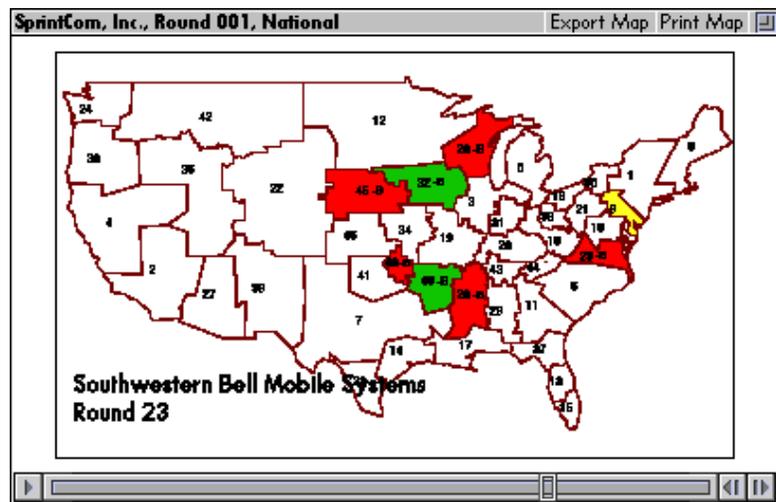
### The Process

A referral led Sprint to PDM, which gave valuable input while building a custom database system that fulfilled all of Sprint's specifications. PDM designed the database with an intuitive point-and-click interface, allowing users to run the system easily and print comprehensive reports on the fly. Because the FCC changed bidding procedures after the first auction, PDM was able to simply update the existing system, protecting Sprint's original investment in the database and reducing the total cost of ownership.

## SPRINT TELECOMMUNICATIONS, INC.

### PACIFIC DATA MANAGEMENT

Sprint Wireless, a division of Sprint Telecommunications, Inc., provides PCS telephone service to millions of callers. To offer the PCS service, Sprint had to purchase licenses from the FCC during a series of fast-paced auctions, in which licenses were sold based on geographical regions across the United States. During the auctions, Sprint used a custom, multi-user database system to analyze competitors' bidding strategies and plan its own nationwide PCS service. Built by Pacific Data Management of San Jose, California, the database stored all bids, printed detailed reports of the data, and mapped the competitors vying for a particular area.



The database mapped the geographic areas that Sprint had won in the bidding rounds.

The three FCC auctions took place over a period of two years, with each auction lasting approximately five months and consisting of hundreds of bidding rounds that generated volumes of data. Participating companies were prohibited from communicating with one another, so they did not know how the other companies were bidding until after each round. However, with its database, Sprint had a competitive edge. Using the database, Sprint could immediately download bidding data from the FCC after each round of bidding. The database tracked what happened during each round, including which company bid on which areas and who won. "The database enabled us to package the data in a way that the decision makers could easily study and determine what the other bidders were doing," noted Scott Fisher, Director of Sprint Wireless. "We could indicate a pattern that would help us plan how to respond in the next round of bidding."

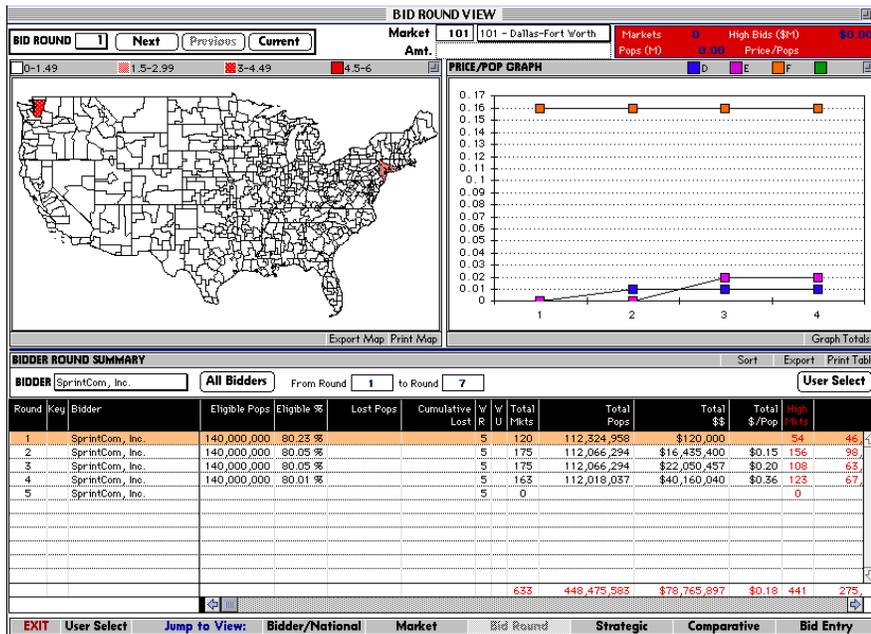
"For example, we could tell if companies bid randomly on an area, and we could tell how badly they wanted an area based on bidding behavior," elaborated Gwen Fox, a telecommunications consultant who assisted Sprint during the auctions. "We were able to massage the data in hundreds of ways to look for bidding trends."

Certain bidding rules also affected a round's outcome, and the system enabled Sprint to predict upcoming rounds based on those rules. For example, a company could be the highest bidder in only one area at a time. After each round, Sprint knew who was the

highest bidder and thus, who lost eligibility to bid high in other areas at the same time. As a result, Sprint took advantage of the competition's ineligibility and was able to purchase licenses inexpensively in some areas.

Sprint also benefitted from the mapping software that PDM integrated into the database. Because telecommunications infrastructure is highly expensive, companies typically want to purchase licenses in contiguous geographical regions. Knowing this, Sprint used the database and mapping software to plot all bids on a map. "We could analyze what the competition's strategies were, like what were their priority markets," stated Fisher. "As a result, we could assess where the competition might be stiffest for us." Additionally, Sprint plotted its own purchases and outstanding bids on the map to ensure that it maintained a logical geographical plan.

The database enabled Sprint to act quickly with time-critical information. "I spoke with the person who designed the bidding concept for the FCC after the auctions ended," explained Fox. "She said it was obvious that Sprint was the only company that understood the ramifications of being able to process data quickly. With the system, we



**Users easily understood comprehensive bidding round data at a glance.**

were able to gather information rapidly, massage it into meaningful results, and distribute it quickly." As a result, Sprint could make informed decisions based on real data to help the company purchase the best PCS licenses, at the best prices, for its business.

One important benefit of the system was that it was so flexible. The FCC changed bidding rules after the first auction, and PDM simply modified the database to support the changes. "This was pure foresight on PDM's part," said Fox. "They never had to start over and that's a huge credit to their design capabilities and thought process."

The auctions are now over and all the PCS licenses have been sold. However, similar auctions are planned for the future and Sprint plans to continue its relationship with PDM to help it win the new challenges ahead.

## The Benefits

**With over \$1 billion to spend on licenses, Sprint had a vested interest in gaining the upper hand during the auctions. The company proactively hired PDM to create a database that would give it a significant competitive advantage. From the beginning of the two-year auction process, Sprint used its database to make sense of volumes of data and plan its strategy based on educated information. Data analysis and reporting had to be done immediately, while the auction was taking place, and the system allowed Sprint to deliver quality data to the decision-makers quickly. As a result, Sprint was able to logically plan its license purchases and was successful in winning licenses for key markets across the United States.**



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