



Data Quality Management at Work for a Telecom Outsourcer

Situation One of the country's largest outsourcers is delivering the entire communications network for a top financial institution. The circuits and infrastructure comprise possibly the most complex private network in existence in the US. The network has approximately 17,000 locations generating data related to circuits and billing information. Millions of records are created monthly and recorded on numerous databases. Available technology was not capable of tracking accurate billing information or constant changes in network circuits recorded on varying data formats.

Protocols The outsourcer maintains an inventory of circuits and various items it bills monthly to the financial institution. Monthly charges are millions of dollars. The outsourcer also maintains a separate database of circuits and numerous items that it is billed for by the various vendors it uses to deliver the financial institution's entire network. In order to ascertain profit at each site on the network, data is delivered from many different sources. These include billing, inventory, vendor, and provisioning. Data is also received from numerous different applications, which include spreadsheets and proprietary "laptop" databases.

Challenge The outsourcer needs a comprehensive and reliable technology for assessing the discrepancies in databases that have records of services delivered so they can be compared against services billed. Complicating the problem of potential over billing by the telecoms is the fact that the databases are compiled in differing formats by the numerous vendors providing the network. The outsourcer, which is acting as a remarketer of the telecom services to the financial institution, may be losing significant revenue as a result of billing inaccuracies that are not discernible in the huge databases.

Solution S3 Matching Technologies conducted a profile of all data, transformed the data into a workable format, TeraMatched it to eliminate redundancies, and exposed exceptions. TeraMatch® is able to discover minute differences in databases of billions of records, "cleansing" the data on the fly. Additionally, it speeds up the process of creating the sole, accurate database by a factor of 5x while reconciling differences in databases up to 10x faster than other technologies. In the case of the outsourcer, TeraMatch's most important work was to search for differences between what was actually used on the network of the financial institution and compare it against what was ultimately billed.

Benefits TeraMatch® discovered more than 5,000 circuits that were disconnected but were still being billed monthly to the outsourcer. When these findings were confirmed with the telecoms and removed from billing, the net cost savings was \$17 million per year. TeraMatch® continues to work within the network to track disconnects and add-ons of circuits to prevent further improper charges while also maintaining an accurate database of all billing information.

