

BI Case Study

AAA Drives Up Data Quality with Address Validation

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Making sure customer contact data is correct and clean, no matter where it resides, is an ongoing challenge for most businesses. At AAA Missouri, the automobile club first saw the need for a data quality management system that could validate addresses beginning in 2004. Today, its address verification system has worked so well for the original task that the software solution has been expanded to several other areas.

Although road maps and roadside assistance come to mind at the mention of AAA, the club has expanded its offerings in recent years. At AAA Missouri, which processes some 600,000 records a year and serves Arkansas, Louisiana, Mississippi, and parts of Kansas, Illinois, and Indiana, members can take advantage of the well-known emergency road service and travel planning, as well as financial services and automobile and homeowners insurance.

AAA Missouri first built and deployed an online Java-based policy processing system in 2004. During the two-year process, the custom front end was designed to interface with its backend policy processing system for homeowners insurance. To handle the address validation it needed, the club selected and implemented Melissa Data's DQWS (Data Quality Web Service). A Web services solution, DQWS is hosted offsite on Melissa Data servers and is available around the clock for real-time address verification. It is used to verify, update, and "scrub" member and insurance addresses as they are entered in AAA's large-scale policy processing database.

DQWS uses its databases to validate the addresses of homeowners insurance policyholders, which are entered into AAA's internal insurance processing Web site by agents. DQWS also cleans up membership addresses—checking for accuracy, proper formatting, and updated area codes, among other things—as they are entered by AAA members in its public Web site. Data is also checked as it is entered by AAA Missouri employees into the club's internal membership processing Web site.

The address scrub takes place in real time, but Dan Perry, a project leader within AAA Missouri's IT department, says he's seen no performance impact. When a user enters an address and clicks to continue, Perry says, "we call Melissa Data to scrub the address. If there are no errors returned, we save the address to the database." If any errors are found, or if the scrubber changes

the address, the system displays the error or corrected address to the user. That step allows a user to override the address scrubber—an option that is sometimes needed for an address in a new subdivision, for example, that isn't yet in Melissa Data's database.

Behind the Need for Clean Data

According to Perry, the specific business issue that triggered a search for a solution had nothing to do with mailing address inaccuracies (a common challenge for businesses). Rather, AAA's homeowners insurance line of business requires retrieval of specific information on a property, including its fire district. Based on the property address, AAA Missouri uses a specialized onsite software product to retrieve the needed information.

The catch: The property address must be strictly formatted to U.S. Postal Service standards when the request is made. Before the address verification solution was introduced, problems in the data included duplicate addresses, incorrect street name formats, misspellings, and incorrect ZIP codes. Previously, the addresses were entered directly into the mainframe with little validation, prompting AAA to search for a product that could validate and format member and customer addresses.

Selecting the Solution

A committee made up of a project lead, the club's manager of insurance systems, and the IT director selected the Melissa Data product

after testing data quality products from several companies. Perry researched and presented the pros and cons of the solutions; the committee then weighed products based on cost, ease of implementation, speed, and maintenance.

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Several data-quality products were considered, but according to Perry, a key difference with DQWS was that it is a hosted Web service. "All of the other products required us to host the solution," he explains. The offsite hosting was a huge consideration for AAA and "probably the top reason we went with Melissa," Perry says. The lack of upfront hardware costs and long-term maintenance expenses proved to be strong selling points.

Because there was no installation, the rollout process was simple. Perry says that prior to implementation, Melissa provided documentation with detailed instructions about merging the service into the AAA system. Connecting to DQWS took the IT staff less than a day, although integrating DQWS into the AAA

Web site took additional time because IT needed requirements from the business side describing how errors and corrections would be handled on the screen.

One initial concern was the speed at which data would be returned. To address that, the selection committee conducted a proof of concept during the evaluation process to compare DQWS's speed against the other in-house solutions. "We found that DQWS was just as fast as the other products with sub-second response times," Perry says, which clinched the decision.

Today, the Melissa Data system at AAA Missouri is used by a range of workers, including both internal and independent agents, underwriters, and customer care groups. For example, it is used by agents in selling insurance policies and AAA memberships, by underwriters to underwrite insurance policies, and by customer care agents to service those policies. In each group, the users include agents and underwriters as well as help desk personnel and middle management.

Having a Web service hosted offsite has translated into a number of benefits for AAA Missouri, such as no additional hardware or maintenance costs. Requests are returned fast enough that the DQWS interface is seamless to users—a critical requirement, Perry says. Other benefits include ease of implementation (which has allowed the auto club to expand its use to other areas) and price. In addition to money saved on

mailings that might have had incorrect addresses before the project, Perry says, DQWS helps ensure that any AAA mailing has the correct address for the recipient.

Future Plans

AAA Missouri's initial plan was to use the Melissa Data product only to validate and format the household addresses for the homeowners insurance line of business. However, Perry says, once the service was implemented and the club began to realize its benefits, AAA decided to use the product for other functions as well. For example, the club began validating and formatting mailing addresses when they were entered by a user; it also began to add functionality to validate both addresses as part of the policy renewal process.

"We already had some custom code in place that runs during the policy renewal process," Perry points out. Calls to DQWS were added to the process so the addresses are scrubbed on renewal. "Adding a DQWS call to the renewal process was important because it allowed us to validate and format addresses that were converted from our mainframe," Perry says. Making the DQWS call for an address check at renewal time also assures the club that any changes made by the postal service are reflected in AAA's database.

Next, AAA decided to implement DQWS to validate and format addresses entered into its online membership system, which is accessed through the same Web

site as the insurance system and is used by employees and the public to purchase AAA memberships. This was done in an effort to increase the accuracy of mailings. Since the membership processing system is still mainframe-based, Perry says, DQWS is not used for membership renewal.

Once the service was implemented and the club began to realize its benefits, AAA decided to use the product for such tasks as validating and formatting mailing addresses when they were entered.

In 2006, the club began to design and develop a project to add auto insurance to its online processing. "We decided from the beginning that we would use DQWS to validate and format all addresses entered into the system," Perry explains, including garaging, mailing, lien-holder, and leaseholder. To do that, Perry says, AAA implemented DQWS in much the same way as for the original homeowners insurance line of business. Perry and his team

of developers set up the system to call DQWS as the user enters the addresses into the screen and during the renewal process; the new system went live in September 2007.

Also in 2006, the club added rental dwelling insurance to its online system, and implemented DQWS to check the household and mailing addresses entered in real time, as well as those entered during the renewal process. Perry says that they are now working on the design phase of adding an excess liability line of business to the online system and plan to implement DQWS for that line of business as well to validate and format every address entered.

AAA Missouri's ultimate goal, Perry says, is an ambitious one: To have every insurance address in the AAA database scrubbed by DQWS, either at entry or on renewal, and to have every membership address scrubbed at time of entry. That ensures that AAA Missouri is dealing with the sort of clean and correct address data that every business desires. ■

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