

Smart Move

Migrating from mainframe to .NET brings numerous improvements for California county.

Until December 2008, Marin County, Calif.'s property tax system was on a mainframe that was expensive to maintain and difficult to integrate with other systems. But after migrating its existing COBOL code to an environment running Microsoft Windows Server and .NET Framework, the county reduced costs by 91 percent by eliminating hardware, software and maintenance costs.

Marin County now uses Microsoft SQL Server for data management and in addition to reducing costs, the county has a much more flexible environment. It has greater Web service capabilities and can integrate new services, such as GIS. The system can also integrate with other systems much more easily, enabling greater accuracy and efficiency since numerous agencies now work from a single database. The system can even connect with state and federal systems.

And the cost-savings and efficiencies associated with the migration are extensive. The county no longer pays maintenance fees for the mainframe or licensing fees for the software that ran on it. The county has new software for scheduling and for printing, and both are much less expensive than their mainframe predecessors.

Marin County is also making greater use of virtual servers, so it spends less on hardware. And the county was able to redeploy people who'd previously worked on mainframe support, moving them to customer service and application development.

New World

Because the county chose to move its existing code rather than create new code, the migration went very smoothly. Testing was greatly simplified because there was a clear baseline against which to measure performance. And there was no need to retrain employees, since processes remained the same. The entire project was completed quickly and cost-effectively, and the county



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expects the new solution to meet its needs for many years to come.

“It’s an old-world/new-world concept,” said Dave Hill, Marin County CIO. “The old world is mainframe — data locked up, hard to see, green screens. The new world is a flatter network, more access, more malleable database, multiple tools you can use to access your database, a customer base that extends through firewalls or not, depending upon how you want to handle it. So it’s part of this whole revolution.”

Although the county set itself up with new tools and capabilities with the transition, the processes were retained because they were working well. “The thing we saved was the business logic,” Hill said. “That is a huge piece of the pie.”

Smooth Sailing

The impact to staff was so minimal, people wouldn’t have noticed the change at all if they hadn’t been told of it. “We didn’t do any training on this conversion because people already knew the system,” said Hill. “There was zero training on the implementation.”

The current environment also frees up staff time for other endeavors. “Our maintenance is very low at this point,” Hill said. “We’re starting to lean more toward adding new features, graphical interfaces and that sort of thing.”

Prior to the change, numerous processes were slower and more difficult. For example, it wasn’t easy to provide data to business analysts who needed to study the effects

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of changing real estate values on school funding. IT staff had to take data offline, convert it into a format that could be analyzed, and then run the needed reports. Changing reporting requirements would add days or weeks to the process.

More agencies throughout the county were seeking access to property data — public safety, zoning, planning, permits and libraries, to name a few. But integrating the mainframe with all these different systems proved to be a cumbersome process. Integrating the system with Web services was also difficult.

Now with the mainframe out of the picture, it’s much easier to connect to other systems. One example is the county’s Electronic Justice Search (EJUS). “This is looking up criminal information, basically, by street address,” said Hill. “It’s a component of the application that we just didn’t have before.”

When it came to improving the system, the county looked at other options, but the .NET solution was the only one that made sense. And once it was in place, numerous agencies benefited. “One of the issues when you go from a mainframe to a network is that you need to bring the tools from the mainframe into the network, like schedulers and print managers,” Hill said. “So once we brought property tax into the network, other mainframe systems that are migrated can leverage that same scheduling and printing technology. You buy once so you can reuse it with as many different applications as you need.”

Spreading the Wealth

Thanks to the flexibility of the .NET platform, it’s likely that many more agencies will be able to access the database in the future. “I can imagine that this database will be available to the cities and towns in real time, because we just completed building

a fiber network, to all the cities and towns, all the police departments, and we’re finishing up the fire departments,” said Hill. “So that network becomes enhanced by the fact that the data on it becomes available to them as well. The county as a whole can maintain the address information for the 11 cities inside the county. The cities, at some point, will be able to have access to that as well, natively, either through their permitting system, their GIS or whatever.”

So no matter what agency needs the data, it will be able to get it from the central database. It’s a very efficient model. “Between law enforcement, health and human services, property and tax, general administration — those are all people who use the database in different ways,” said Hill. “Then you have the cities, and they have their public works and planning, and then you have the libraries. All of those are related to an actual street address location.”

The property tax system is the official record of street address, and now that all the county’s data is in SQL Server, it’s much easier to share that data with other agencies. That’s just one of the many benefits the county has seen from the migration to .NET, and it expects to see many more in the years to come.

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