



Located between San Antonio and Austin, and serving as the gateway to Texas Hill Country, New Braunfels is home to over 58,000 residents. The City boasts an excellent balance between small-town charm and larger city convenience and is popular among tourists for its vibrant downtown and for tubing down its spring rivers.

The Challenge

Since the launch of its first web mapping application in 2007, the City of New Braunfels has developed considerable experience in the realm of web-based GIS. The GIS department was an early and aggressive adopter of ArcGIS Server and has created services and applications that have been widely adopted by both internal users and the public.

The Solution

The City made a number of incremental changes over the last year to optimize performance of their ArcGIS Server services and applications. They moved their database to a separate physical server from their ArcGIS Server instance, upgraded from 100 MB/s to 1 GB/s Ethernet, and installed Latitude Geographics' Geocortex Optimizer to manage and monitor overall system performance.

The Result

These changes have made the City of New Braunfels' GIS system more secure and responsive and they have given city staff readily actionable insight into system use and performance. Geocortex

Case Study Summary

Client:

City of New Braunfels

Location:

Texas

The Challenge:

- » To optimize performance of their ArcGIS Server services and applications
- » To understand how both internal city employees and the public use the existing ArcGIS Server applications

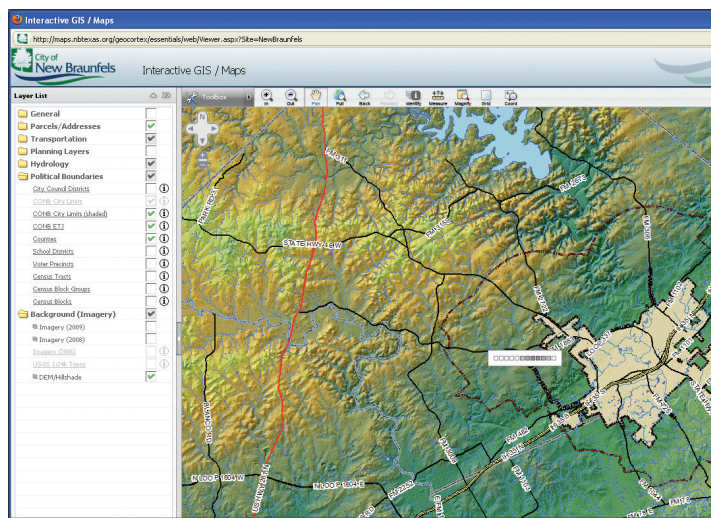
The Solution:

- » Geocortex Optimizer manages and monitors overall system performance

The Result:

- » Better understanding stakeholders' needs allowing the City to make more informed GIS investment decisions
- » Optimized performance of ArcGIS Server applications and slashed map image generation time by over 70%

Optimizer has allowed the City to monitor the impact of data loads on performance, set alarms to monitor CPU utilization and memory usage, and probe ArcGIS Server to measure image generation times. It was the Geocortex Optimizer ArcGIS Server probe that alerted Michael Parma, GIS Coordinator at City of New Braunfels, to a sudden and dramatic reduction in image generation time. “I came in one morning and was pleased to discover map image generation time was slashed by over 70%,” explains Parma, “but soon discovered this was entirely unrelated to the optimization efforts I’d been undertaking at the same time. It turned out our network engineers had reconfigured our internal network, significantly improving server performance. This excited our IT Manager and he now wants to use Geocortex Optimizer to monitor our entire IT backbone.”



Map image generation time has been slashed dramatically since the City of New Braunfels started to use Geocortex Optimizer.

In addition to optimizing the performance of ArcGIS Server, the City wanted to understand more about how users use the system. They wanted to know which layers were the most popular and which server services were

being used the most, and then use these metrics to demonstrate return-on-investment and to justify future spending. For a city of modest size, they were surprised and somewhat perplexed to discover that usage was much higher than expected. They soon determined that agencies outside the expected user base had come to rely on the system—the public library was using the system to verify the addresses of prospective patrons and the municipal court was doing the same for jury selection. Understanding the existence and needs of additional stakeholders allows the City to make more informed decisions about future investment in GIS.

Future plans for the City of New Braunfels include adding cached map services to increase performance for predicted system growth, configuring additional alarms to monitor key metrics, and installing Geocortex Optimizer on their iPhones and Blackberrys (not yet available) in order to monitor their GIS systems on the go. The City also plans to make the transition from ArcMap documents (MXDs) to optimized map services using a Map Service Definition (MSD), available at ArcGIS Server 9.3.1. Lastly, because geocoding is such a widely used and popular feature among the City’s users, the City would like to have a probe developed in Geocortex Optimizer that pings ArcGIS Server regularly to ensure geocoding is functioning properly.

“We’ve come a long way in the last 2 ½ years,” observes Parma, “and thanks to many of the improvements we’ve made to our ArcGIS Server stack, our users have heightened expectations for performance and reliability—which is a good thing. This will keep our department on our toes as we strive to add features our users want and continuously improve our applications.”