Case Study

> " NCache provides extraordinary scalability for our applications, while adding reliability through intelligent replication of our application and user session data."
>
> **Paul V ienneau**
> Chief Technology Officer
> Vice President of Engineering
> NaviNet, Inc.

NaviNet
Where healthcare comes together.

NaviNet, America's largest real-time healthcare communications network, taps NCache for high scalability and performance

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THE CHALLENGE

Maintaining its web portal's performance and especially its reliability presented a huge challenge for the NaviNet IT team, considering that tens of thousands of people access the NaviNet portal for its applications and services. Also, the rapid growth the company experienced in the last few years demanded an online solution that could scale in the long run.

Using ASP.NET as the programming framework, NaviNet required a highly reliable, scalable and high performance solution to meet the needs of the inordinately high number of concurrent users.

Reliability

Paul Vienneau, Chief Technology Officer and Vice President of Engineering at NaviNet, said, "We wanted a solution that provided high availability because in our business we cannot afford downtime. This is because our customers use our online services as part of their day to day operations."

The caching solution had to be extremely reliable and robust. They needed a failsafe or special disaster recovery in case a cache server stopped working.

Scalability

"Our business is growing and this means that our SaaS infrastructure also has to grow along with our business. Therefore, our web portal needed the flexibility to expand without having to re-engineer anything. We didn't want any external solution that would become a scalability bottleneck in our infrastructure."

Performance

While improving reliability and scalability, the web portal had to perform at its best to give customers the lowest response time. Customer support depended on a fast and responsive website that delivered the required information in the least amount of time.

The NCache Solution

NaviNet's in-house solution performed adequately. However, the IT team anticipated a rapid influx of users in the coming years and decided a more robust solution was critical. They looked into third party caching solutions and found NCache was the best fit in their environment.

Vienneau said, "NCache provides extraordinary scalability for our applications, while handling extreme amounts of load without slowing down our performance. At the same time, since we are storing our session data in NCache, it provides us a highly reliable in-memory data storage, thanks to its intelligent replication."

NCache provides various stable and highly reliable cache clusters that store all the session data as well as application objects for extremely fast retrieval.

NCache's dynamic cache cluster topologies allow NaviNet to scale to accommodate all the concurrent traffic in an efficient and cost effective manner. Plus, those topologies provide the failsafe mechanism NaviNet was looking for.

Data is replicated to other servers in the cache cluster and even if one server inside the web farm goes down, session and application data could be easily retrieved from another location immediately without any downtown or performance loss.

The Result

Mission Critical Resource

NCache provides us dynamic clustering and distributed caching. This allows NaviNet's web applications to rely on a failsafe in-memory storage mechanism for both our session and application data. This means that even if a cache server goes down, the dynamic cache cluster self-heals and continues working without any interruptions or even any data loss due to intelligent replication built into NCache. And, this is good news for our user session data which is also stored in NCache.

Easy Management of Huge Traffic Loads at Peak Times

No matter what the size of web traffic, Alachisoft's distributed clustered cache also makes it possible for NaviNet's patrons to be serviced smoothly. More web servers can be added to the cluster without having to stop the application. Since the customers' web sessions are stored automatically inside the cache cluster, the application does not care how many web servers access it. This scenario lets the application scale quite nicely.

Improved Customer Service and Support

The number of web servers can be added or removed while the application is running. This means there is no downtime and NaviNet's customers can be continually served without having to put them on hold. Current and future clients' queries can be answered in real-time. Our customer activities do not have to wait for a web server to re-start.