

iTalk Celebrates the Year of the Rabbit with a 500% Speed Boost

There are nearly 2 million Chinese immigrants in the US. And every year when Chinese New Year rolls around, hundreds of thousands call their relatives back home to celebrate.

So if you're the leading VoIP provider to China and your network must be fast enough to handle thousands of simultaneous Chinese New Year calls, what do you do?

You call Texas Memory Systems.

The Situation

Families Separated by 7,000 Miles

iTalk Global Communications (iTalkBB.com) connects more calls to China than any other Voice over Internet Protocol (VoIP) service. Unlike other vendors who simply sell VoIP telephone services, iTalk operates an entire call delivery network that is optimized to provide top quality and service to its customers.

During special occasions like Chinese New Year, the company must be ready for significant call volumes and the data transactions they generate. As more transactions and users hit iTalk's software and hardware, their IT team must continually monitor to make sure their systems continue to perform.

To do this, iTalk developed custom Oracle and Microsoft SQL Server applications. These applications manage call detail records, handle authorization and authentication, and allow customers to access and query accounts.

"We are not moving a lot of data," explained Jeff Liegel, Chief Engineer. "However we have a lot of transactions with a very high rate of throughput." iTalk needed to boost their transaction rate but found that their conventional, hard disk-based storage wasn't up to the task.



iTalk turned to CVCtek (cvctek.com), an experienced provider of high performance storage solutions.

CVCtek recommended contacting Texas Memory Systems for a no-charge performance analysis.



Company

iTalk Global Communications

Key Product

iTalkBB VoIP service

Industry

Telecommunications

Applications

Custom applications using Oracle and SQL Server

TMS Solution

RamSan-620 Flash SSD



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Jeff Liegel, Chief Engineer

The Challenge Eliminating I/O Delays

As iTalk's software and hardware infrastructure are tasked with handling more transactions and supporting increased volumes of concurrent users the IT team must ensure its systems continue to perform. To achieve this, iTalk developed custom software applications using Oracle and Microsoft SQL Server databases. These applications manage call detail records, handle authorization and authentication, and allow customers to access and query accounts.

...the best investment of technical dollars we could have made.

Jeff Liegel, Chief Engineer

"We are not moving a lot of data," explained Jeff Liegel, Chief Engineer. "However we have a lot of transactions with a very high rate of throughput."

iTalk needed to increase the transaction rate beyond what was possible using their conventional, hard disk-based storage. iTalk looked to [CVCtek \(cvctek.com\)](http://cvctek.com), an experienced provider of high performance storage solutions, who recommended contacting **Texas Memory Systems** for a no-charge performance analysis.

The Solution High-Performance, Reliable RamSan- 620 Flash Storage

Texas Memory Systems recommended implementing a **RamSan-620**. The RamSan-620 is a shareable rack-mounted SLC NAND Flash SSD that combines performance, capacity, and reliability at a competitive cost. It delivers 250,000 sustained IOPS for random reads and writes—500 times faster than high performance hard disk drives!

Throughput is 3 GB/s with latency from 80-250 microseconds. The RamSan-620

provides up to 5 TB of usable capacity in a 2U enclosure,

and has enterprise-grade data protection against Flash chip failures.

"There were no data changes with this system, so the operation was low risk," said Mr. Liegel. "The RamSan not only fixed the performance problem, but it only used 1% of its resources to do it."

After further testing, iTalk provisioned a new RamSan-620 into their production environment during a scheduled maintenance window. The system was up and running in just 90 minutes.

The Result Instant 5x Performance Boost

"With one easy change we vastly improved performance," said Mr. Liegel. "All kinds of problems just melted away. Transactions were so fast we didn't have to worry about how we managed them to squeeze them all in. With one act, we increased performance more than 5x without updating our software or making any changes other than where we stored our data. It is by far the most successful, highest-impact piece of hardware in our system. It really couldn't have been more of a success and it was easy."

iTalk commended the support team at Texas Memory Systems for being knowledgeable and proactive. Unlike other vendors, TMS helped iTalk further tweak their systems—including software—to achieve the best possible performance.

Next year the company plans to replace its remaining hard disks with RamSan SSDs so billing and customer query operations are as rapid and reliable as the call operations. Hard disks will be used strictly for archiving data.

With the RamSan-620 in place, the Year of the Rabbit went smoothly for iTalk. Customers called family and friends in China with ease.

Mr. Liegel summed up iTalk's RamSan experience as *"probably the best investment of technical dollars that we could have made."*



Texas Memory Systems, Inc.

RamSan.com

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