TMS
TEXAS MEMORY SYSTEMS

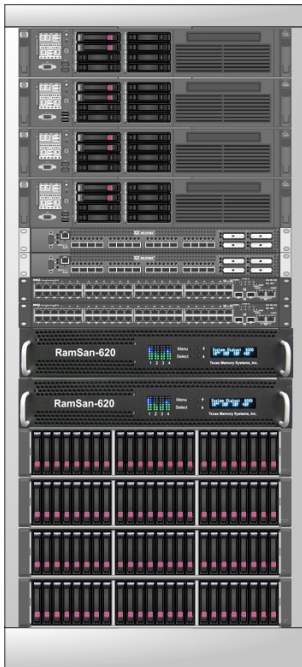# RamSan
The World's Fastest Storage®

OPERA
Oracle Performance Enhancing RamSan Architecture

A high-performing, highly reliable, and cost-effective solution comes together to make beautiful music.

OPERA

Oracle Performance Enhancing RamSan Architecture (OPERA) tightly integrates RamSan-620 Flash solid state disks (SSD) with Oracle 11g, Oracle ASM (Automatic Storage Management), and Oracle RAC (Real Application Clusters). OPERA serves all Input/Output (I/O) requests from the RamSan-620 SSD - the industry's highest-performance Flash SSD - providing unmatched Oracle performance. This new architecture leverages Texas Memory Systems' Flash SSD and its experience in accelerating Oracle Databases to provide organizations with a turnkey storage system that can be integrated with existing Oracle 11g databases. The solution is tailor-made to meet the specific needs of all I/O bound Oracle databases.

Why do I need this?

In today's 24X7 fast paced world your Oracle database system is a lynch pin that holds the fabric of your company together. The Oracle system must perform well, ensure reliability, and be cost-effective. OPERA is designed to leverage the availability features of Oracle, and the high performance solid state disk products from Texas Memory Systems to create a high-performance, highly reliable, and cost-effective system. If your company relies on consistently high performance for Oracle, OPERA is the only solution for you.

How it works

OPERA leverages the strengths of server memory, RamSan-620s, Oracle ASM, and hard disks to solve performance, redundancy, and price concerns. In an OPERA architecture a minimum of two RamSan-620 SSDs are used to provide all read and write I/O. All read operations are from the RamSan-620. All blocking write operations - such as transaction log writes - are mirrored between the RamSan-620 units. All non-blocking write operations - background or lazy writes - are preferred read mirrored using Oracle ASM between RamSan-620 units and SAS hard disks.

About Texas Memory Systems

Texas Memory Systems designs and builds solid state storage systems for accelerating essential enterprise applications. The award-winning RamSan product line, known as The World's Fastest Storage®, delivers fast, reliable, and economical solutions to a broad base of enterprise and government clients worldwide. Founded in 1978, Texas Memory Systems continues to architect and engineer the future of solid state storage.

30 years Since 1978

TMS
TEXAS MEMORY SYSTEMS

www.RamSan.com | www.TexMemSys.com

Telephone: 1 (713) 266-3200
Fax: 1 (713) 266-0332

Features	Benefits	Value
• Up to 20-TB SLC Flash SSD and 56-TB SAS disk drives for redundancy	• Ability to put entire database on the industry's fastest Flash SSD*	• Increase performance and achieve industry leading uptime while reducing space, energy usage, and Oracle licenses.
• Optimized around Oracle 11g feature set	• Cost optimized solution	
• 1,000,000 IOPS	• Consistent and fast response time	• Handling more transactions faster than ever leads to happy end-users, greater efficiency, and profits.
• 80 µs write/250 µs read	• No single point of failure	
• Access to Texas Memory Systems' Oracle and systems experts	• Reduce hardware and software costs dedicated to Oracle	• Increase the predictability of your storage performance to better utilize resources.
	• Decrease energy costs and physical space	• Maximize your datacenter investment.

* 0.72 millisecond sustained response time, Storage Performance Council SPC-1 Results #A00085, www.storageperformance.org