HighPoint RocketRAID 2320
Boosting Real World Applications

October 19, 2005

Test Environment:

CPU:	(2) Xeon 2.8 GHz EM64T
Motherboard:	Supermicro X6DVL-EG
Memory:	4GB SDRAM
HDD:	(8) WD2500KS-00MJB0
OS:	Windows 2003 Enterprise Server SP1
Testing Utility:	IOmeter 2004-07-30
Host Adapter Info:	RocketRAID 2320 (v1.01)
Device Driver:	RocketRAID 2320 (1.0)

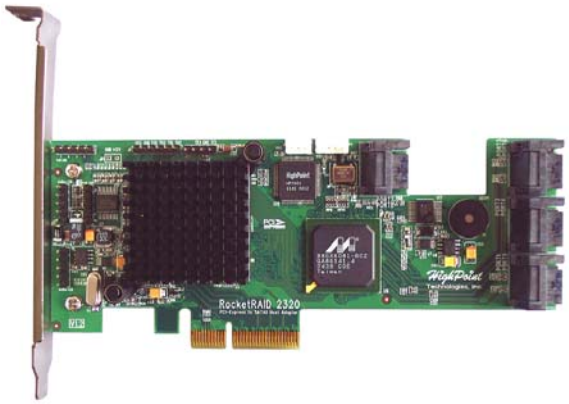
Summary

The HighPoint RocketRAID 2320 PCI-e x4 SATA II RAID Controller was used in this benchmark to demonstrate sequential READ and WRITE performance for small and large block sizes and with simulated real world environments including (database sever, web server, file server and workstations) profiles.

RAID arrays (0 and 5) were created on the RocketRAID 2320 host adapters with (8) WD 2500KS SATA II hard disk to form the array to be tested.

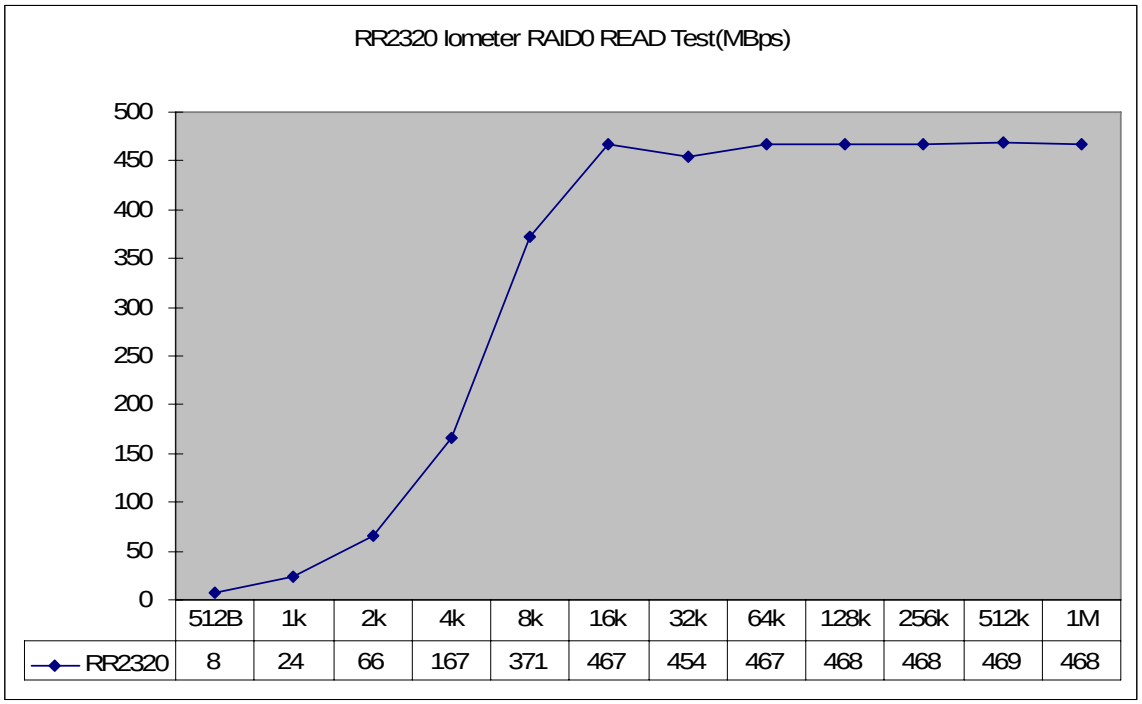
The RocketRAID 2320 excels tremendously in sequential READS and WRITES with over 450 MB/s of sustained transfers. The performance results for real world simulations also show that the RocketRAID 2320 provides the performance that can boost various application needs.

HighPoint RocketRAID 2320 PCI-e to SATA II RAID Controller



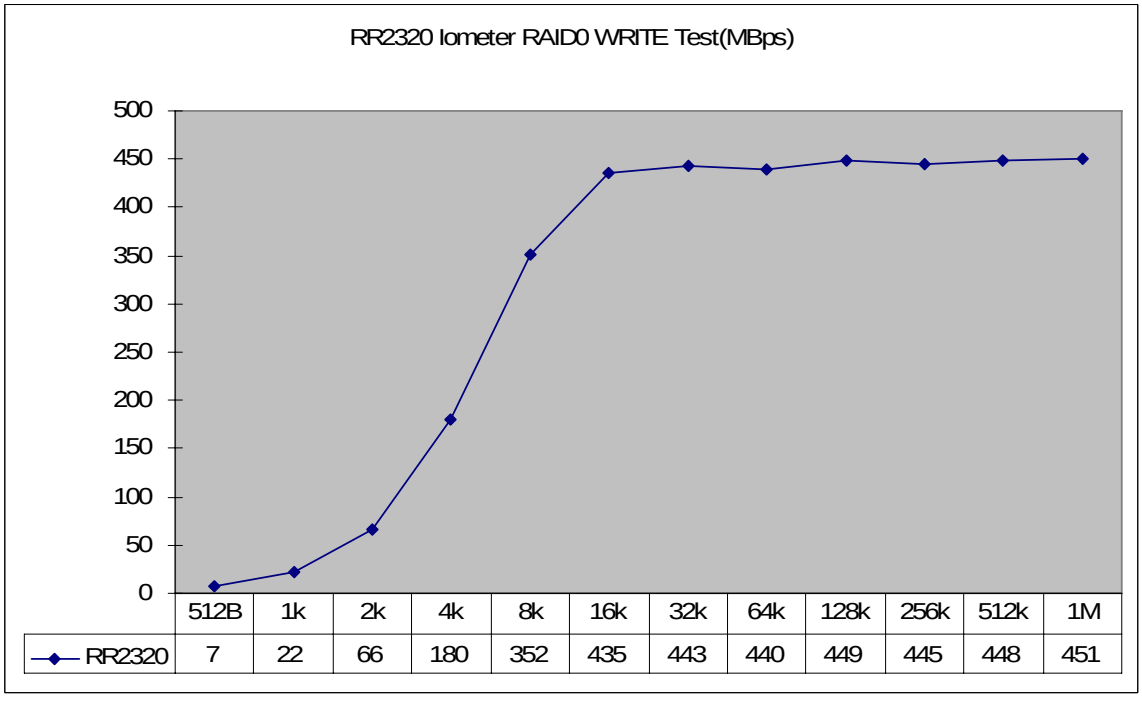
- PCI Express x4
- SATA II and SATA I hard drive support
- Up to 300MB/s for each SATA II drive port
- Support RAID level 0, 1, 5, 10 and JBOD
- Online Capacity Expansion and Online RAID Level Migration (OCE/ORLM)
- Native Command Queuing (NCQ)
- SAF-TE enclosure management
- Hard drive activity and Failed LED support
- Staggered drive spin-up support
- Hot swap and hot spare
- Write-through and write-back cache support
- Quick and Background initialization for quick RAID configuration
- Online array roaming
- BIOS booting support (INT13)
- Single RAID Cross Adapter Support
- 64bit LBA for over 2TB support
- Automatic RAID rebuild of failed drive
- S.M.A.R.T drive monitoring for status and reliability
- Browser-based RAID management software
- Command Line Interface (CLI)
- SMTP for email notification
- Operating system support for Windows, Windows x64 Editions, Linux (open source) and FreeBSD (open source)

RAID 0 Sequential READ



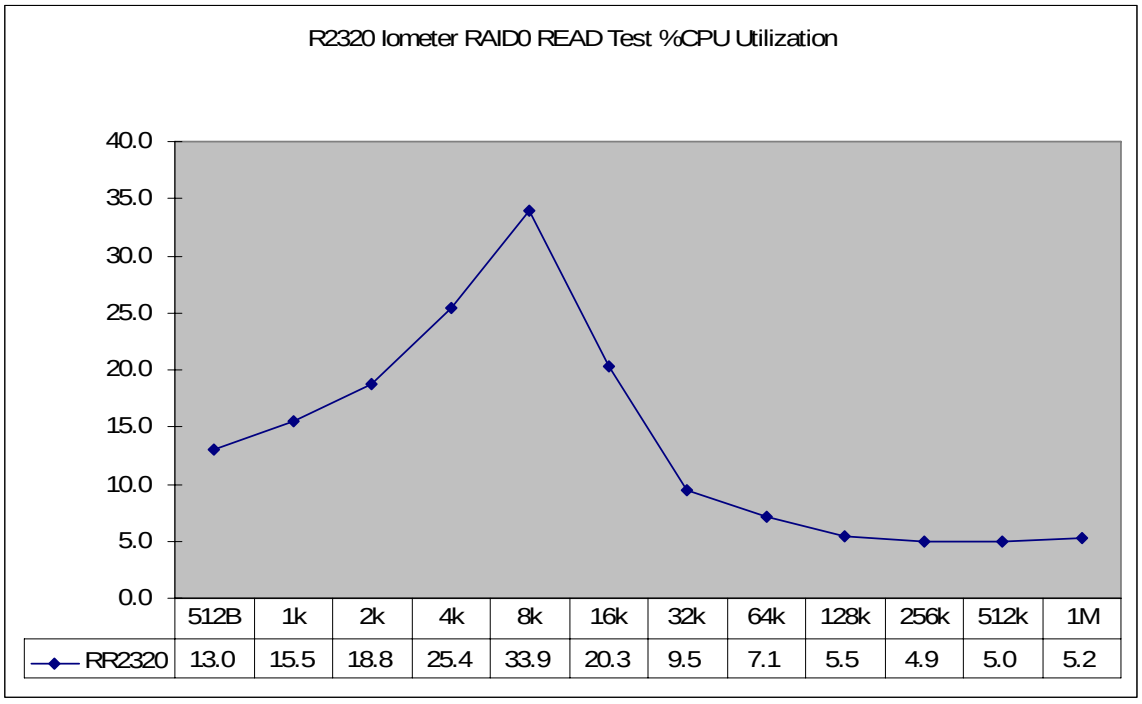
	512B	1k	2k	4k	8k	16k	32k	64k	128k	256k	512k	1M
RR2320	8	24	66	167	371	467	454	467	468	468	469	468

RAID 0 Sequential WRITE



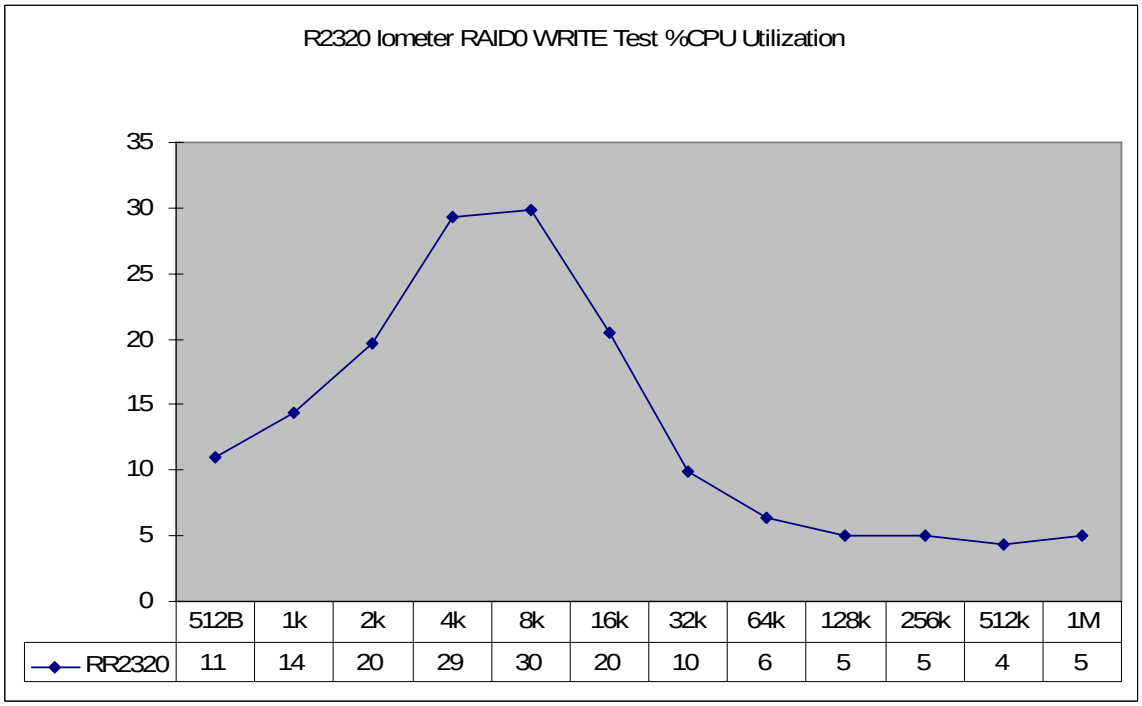
	512B	1k	2k	4k	8k	16k	32k	64k	128k	256k	512k	1M
RR2320	7	22	66	180	352	435	443	440	449	445	448	451

RAID 0 Sequential READ %CPU



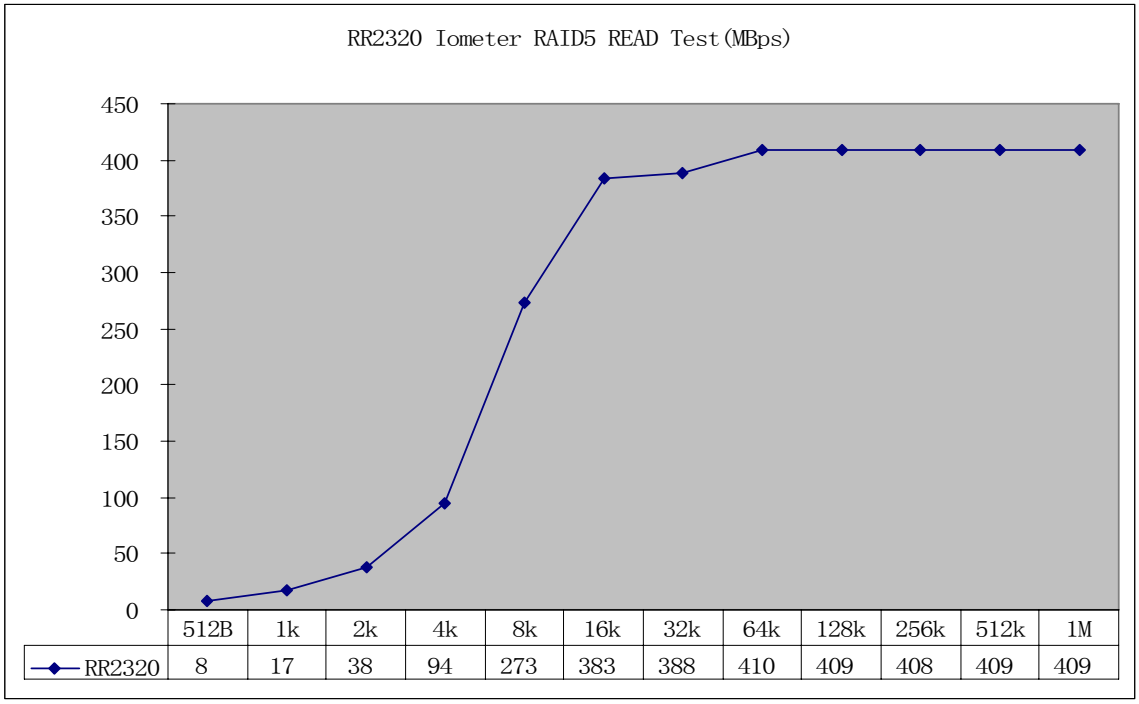
	512B	1k	2k	4k	8k	16k	32k	64k	128k	256k	512k	1M
RR2320	13.0	15.5	18.8	25.4	33.9	20.3	9.5	7.1	5.5	4.9	5.0	5.2

RAID 0 Sequential WRITE %CPU

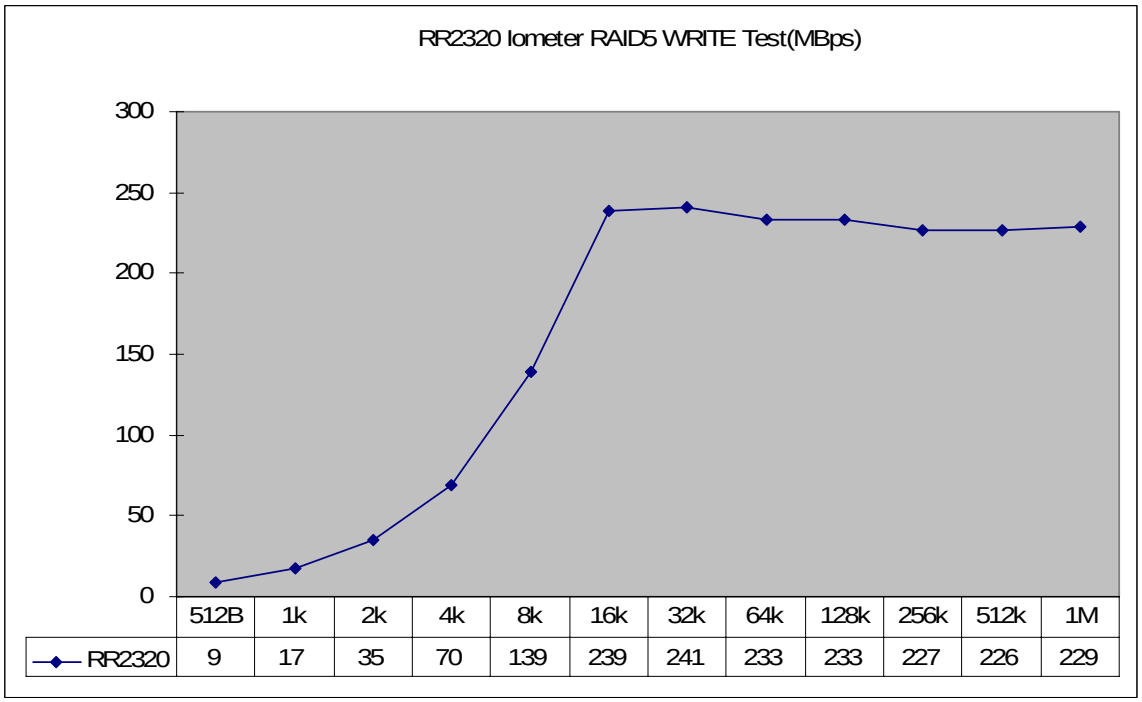


	512B	1k	2k	4k	8k	16k	32k	64k	128k	256k	512k	1M
RR2320	11	14	20	29	30	20	10	6	5	5	4	5

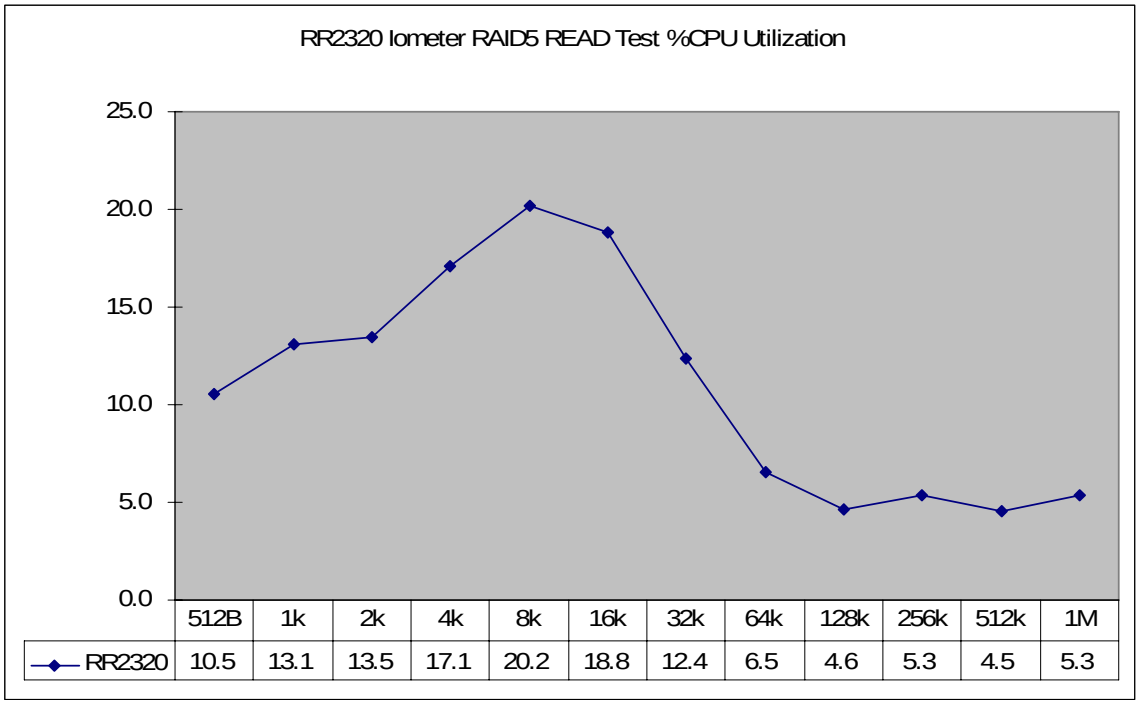
RAID 5 Sequential READ



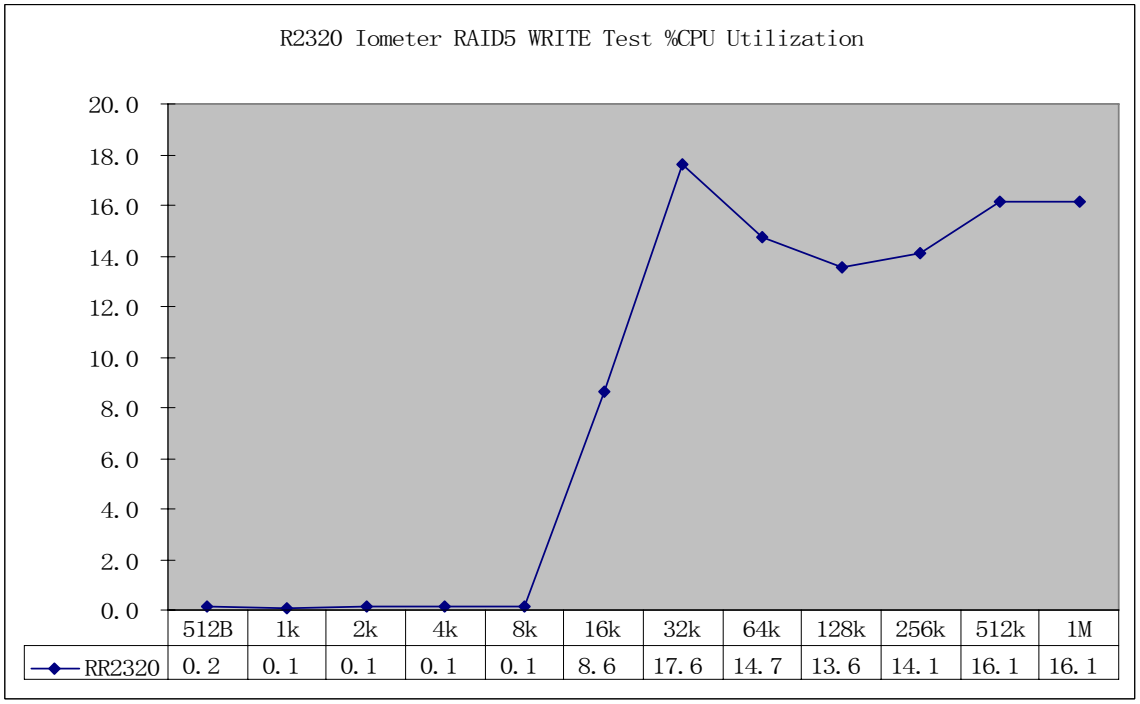
RAID 5 Sequential WRITE



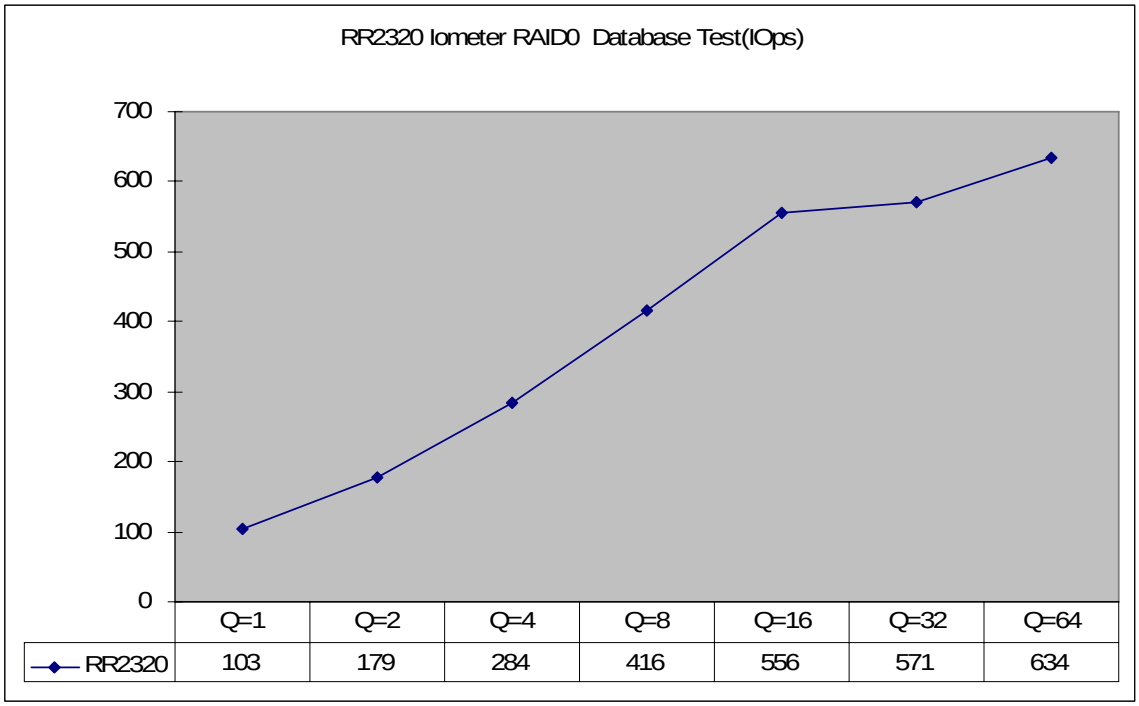
RAID5 Sequential READ %CPU



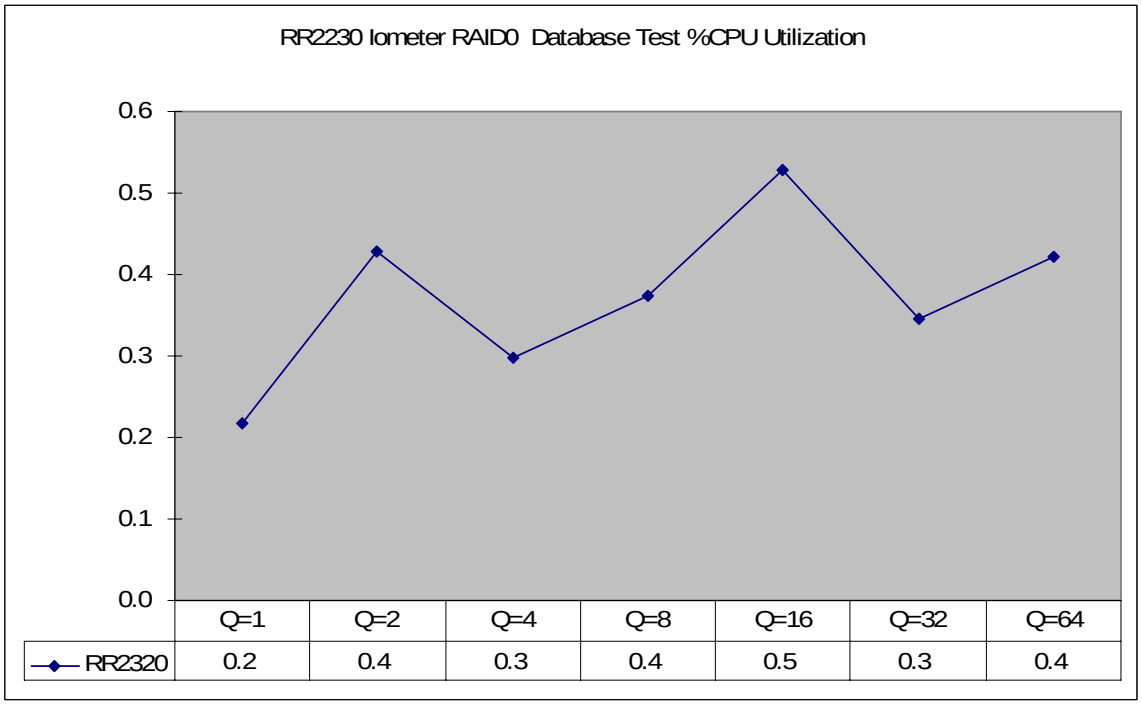
RAID 5 Sequential WRITE %CPU



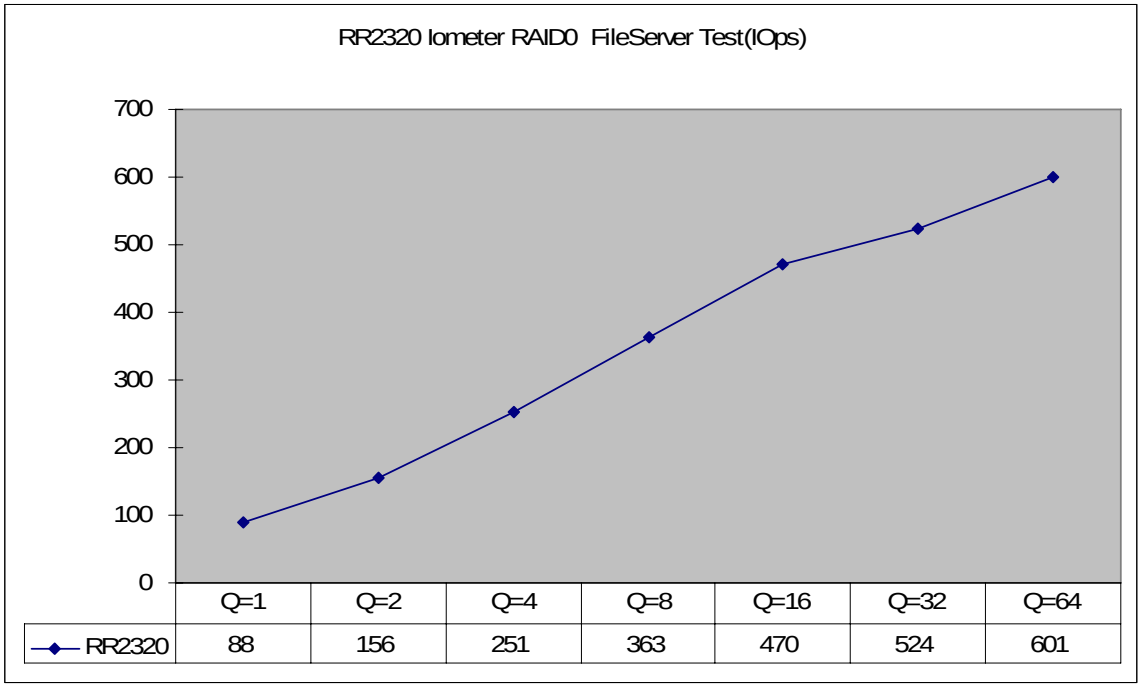
RAID 0 Database I/Ops



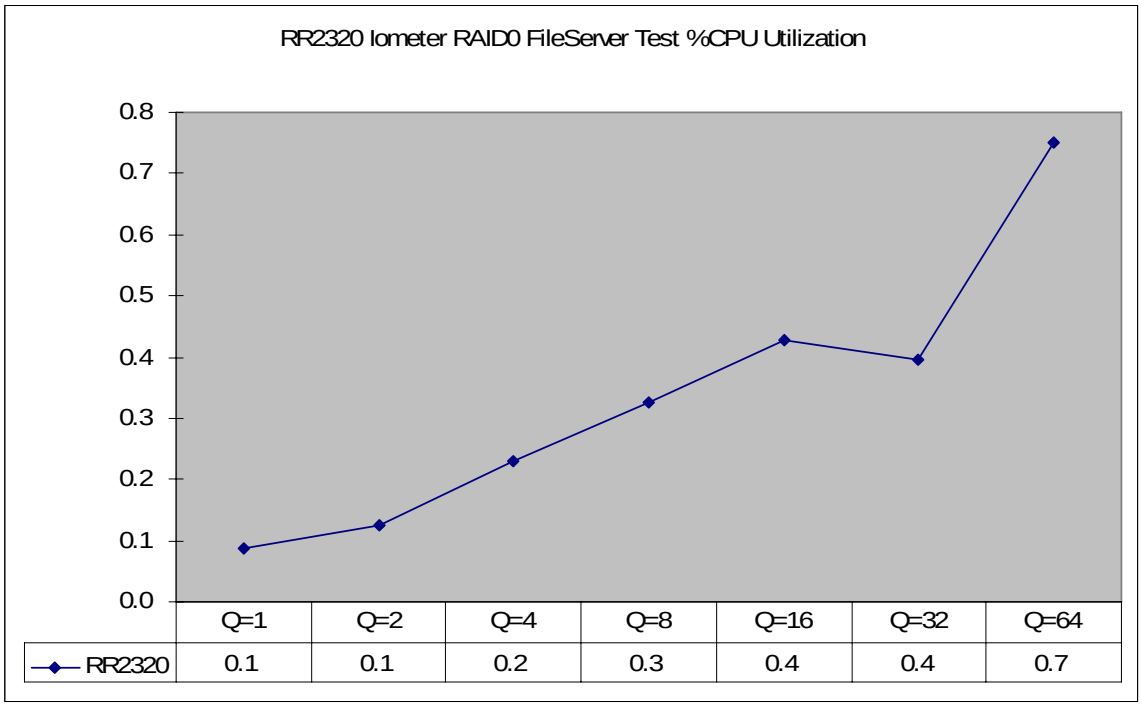
RAID 0 Database %CPU



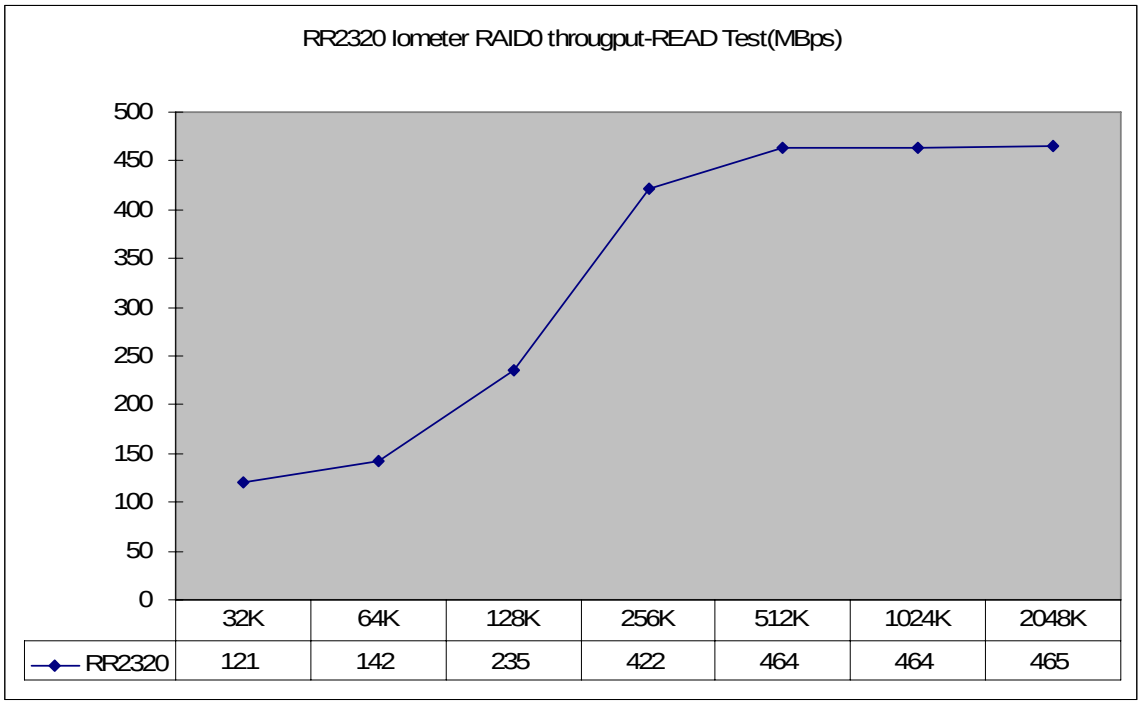
RAID 0 Fileserver I/Ops



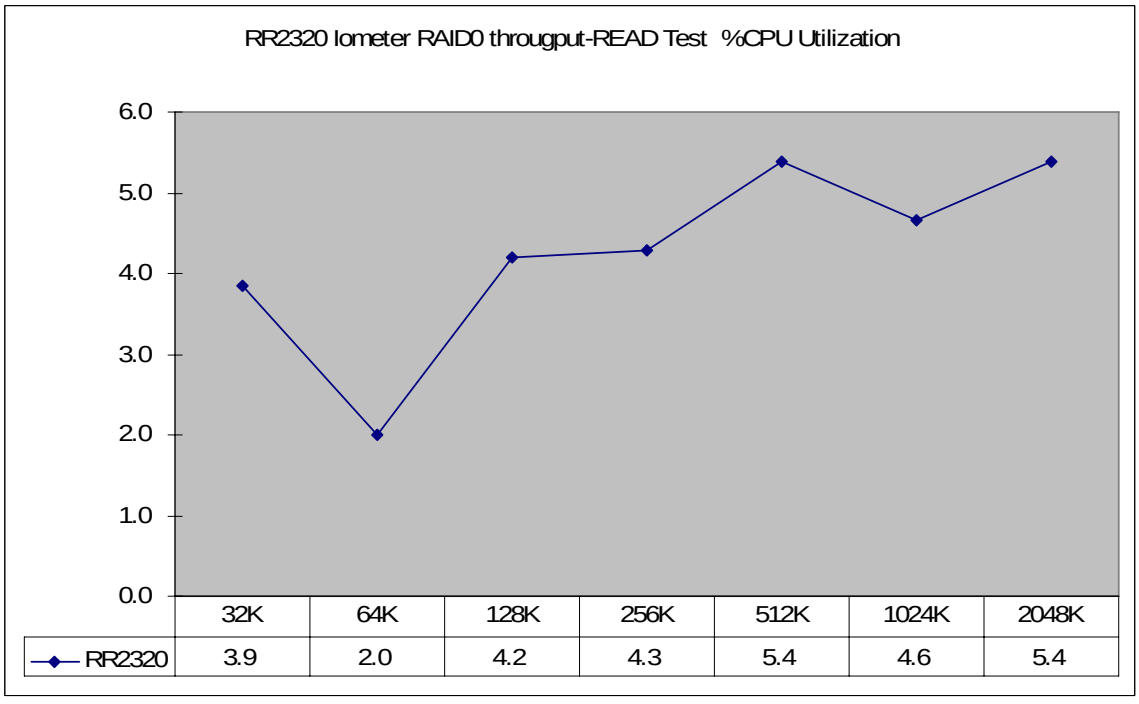
RAID 0 Fileserver %CPU



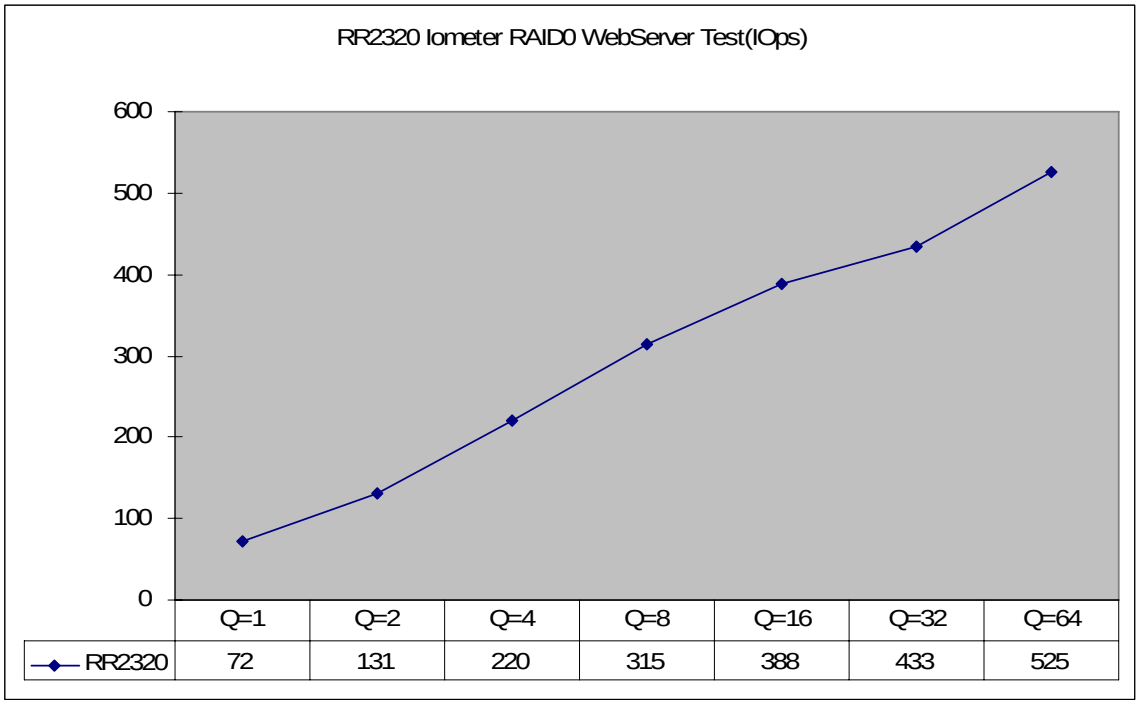
RAID 0 Throughput READ MBps



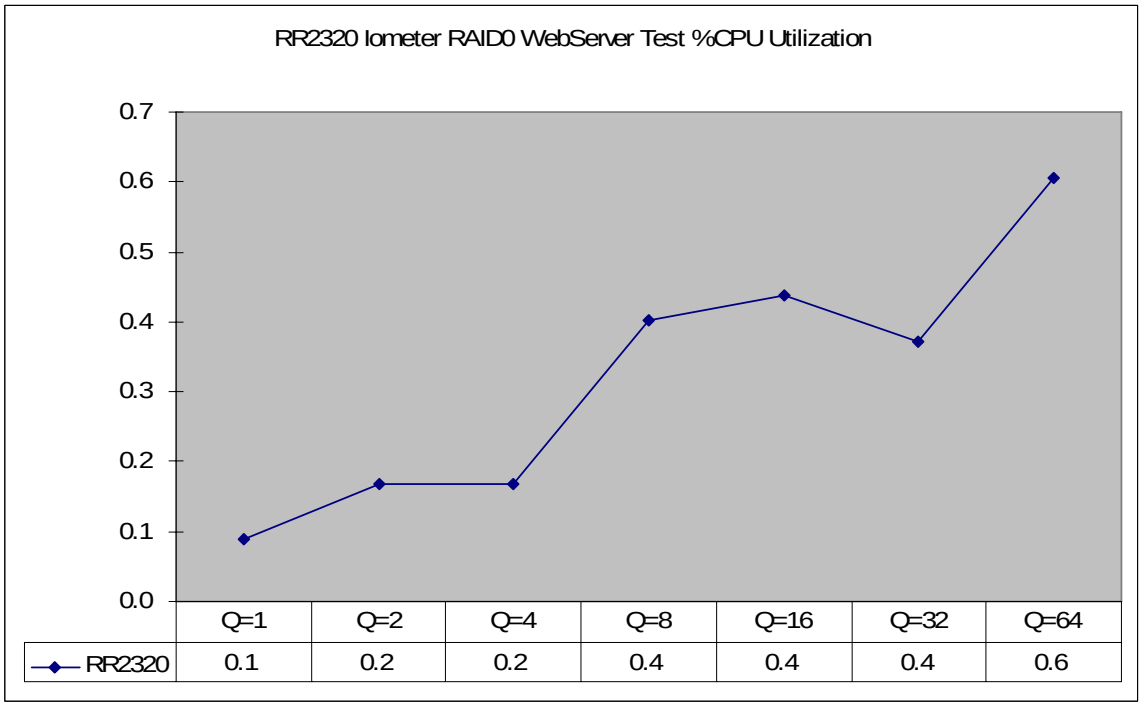
RAID 0 Throughput READ %CPU



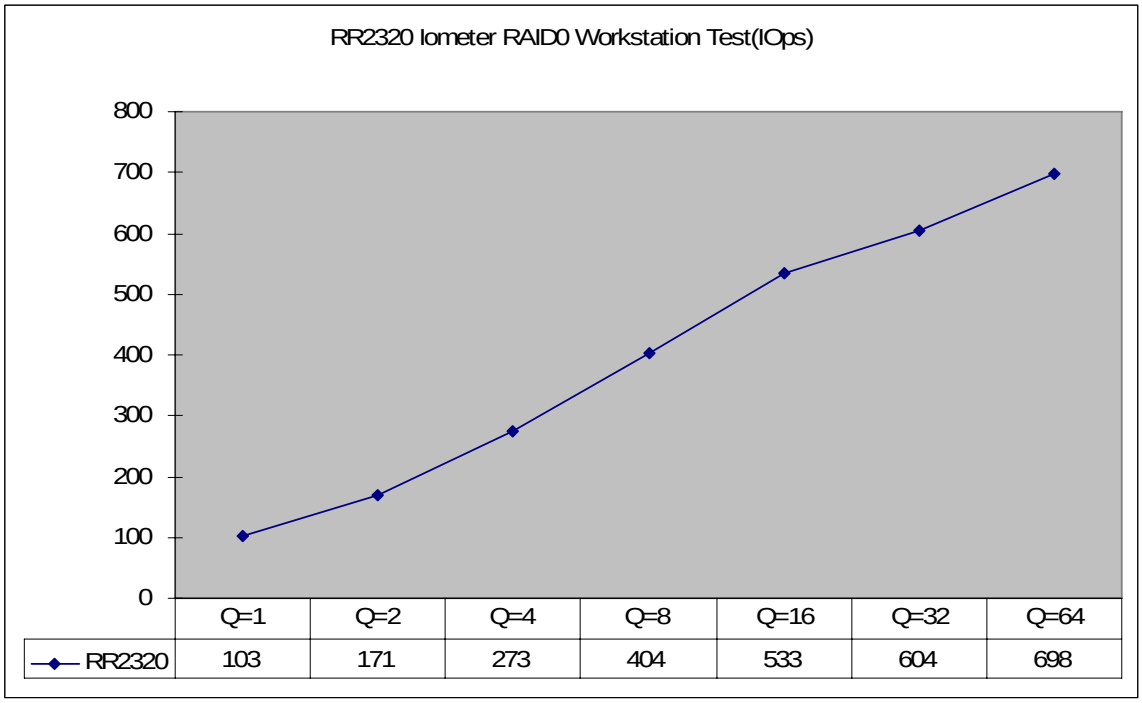
RAID 0 Web Server I/Ops



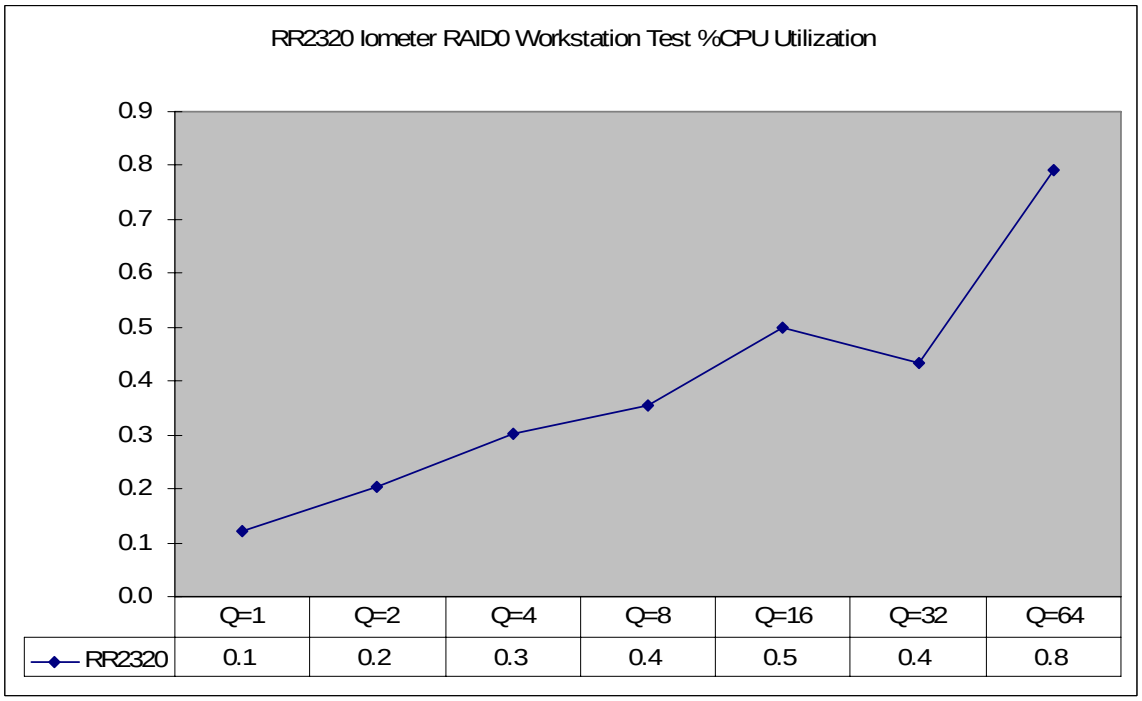
RAID 0 Web Server %CPU



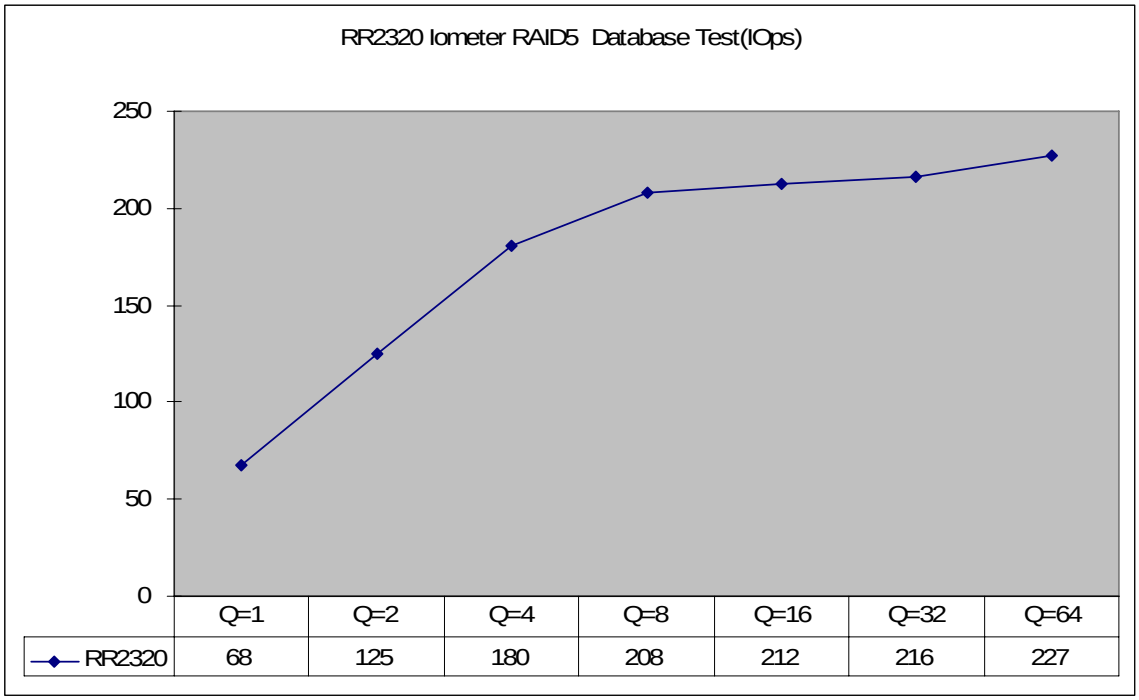
RAID 0 Workstation I/Ops



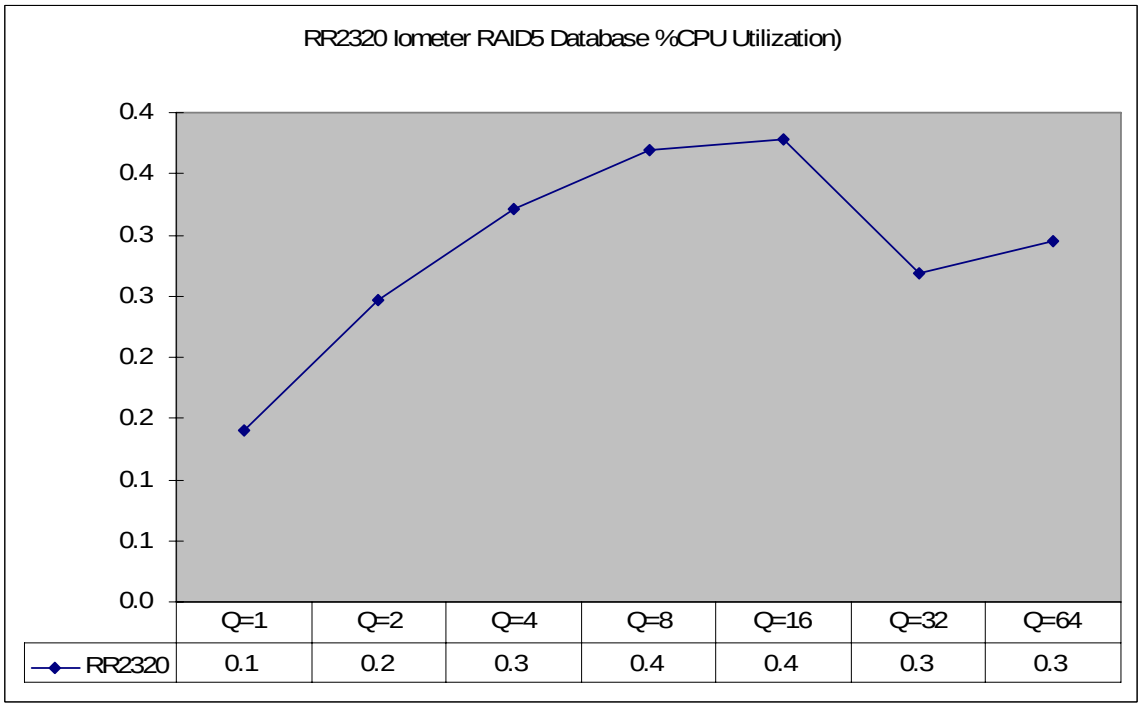
RAID 0 Workstation %CPU



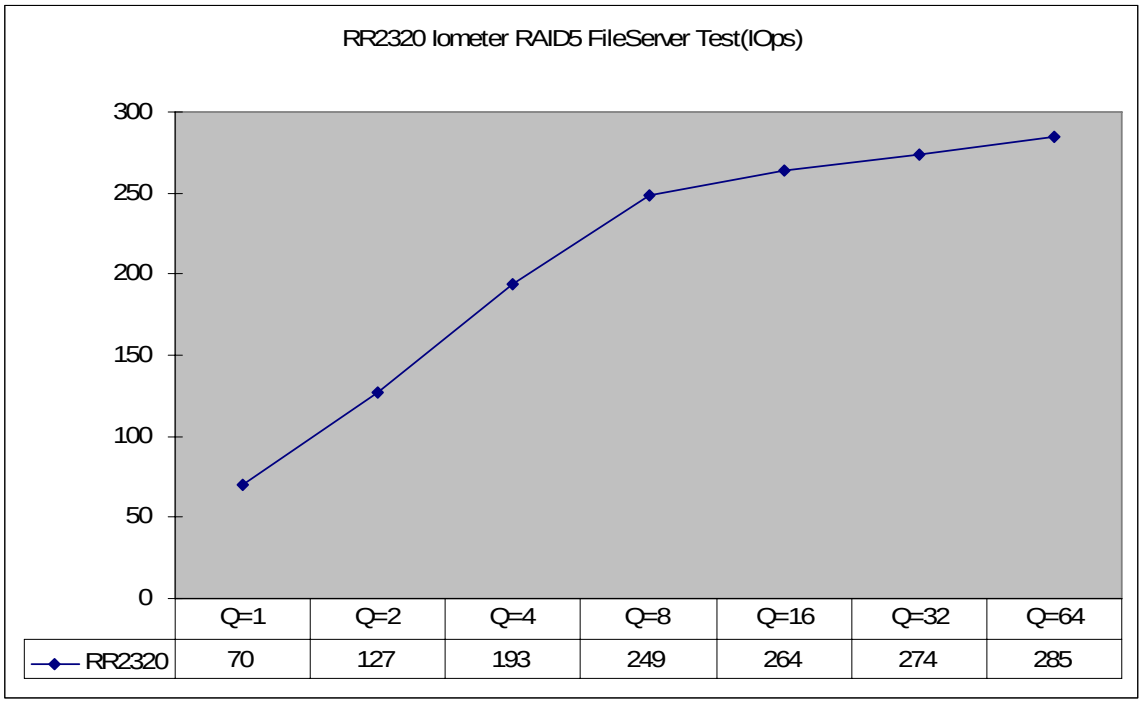
RAID 5 Database I/Ops



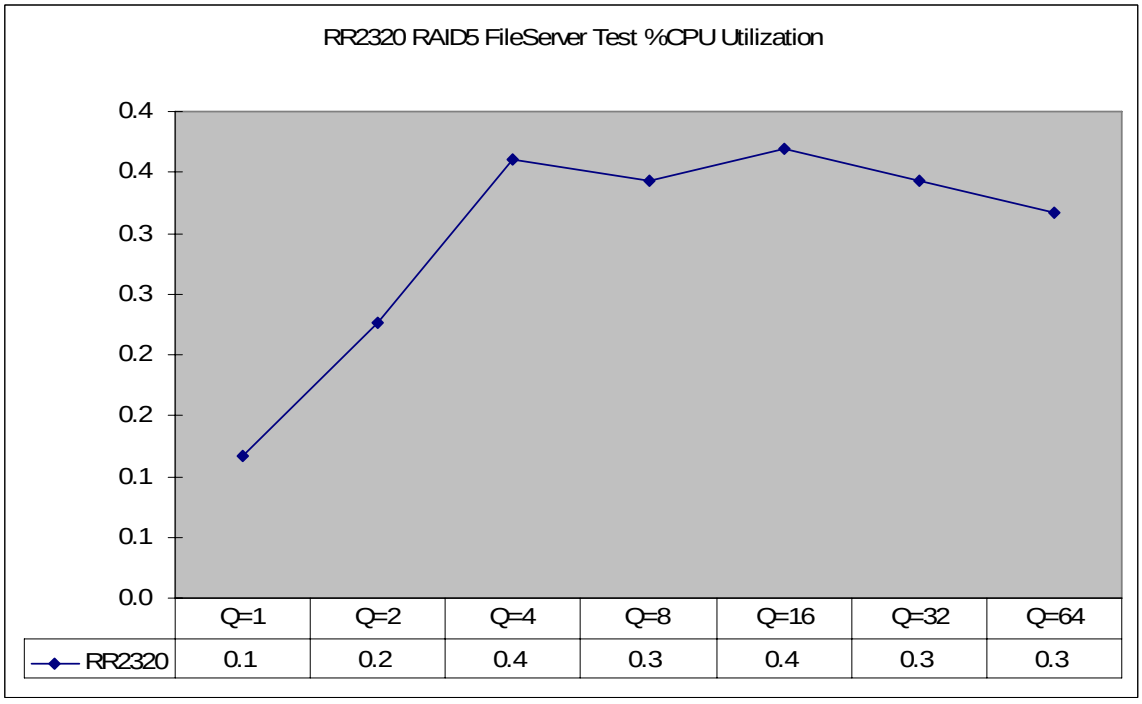
RAID 5 Database %CPU



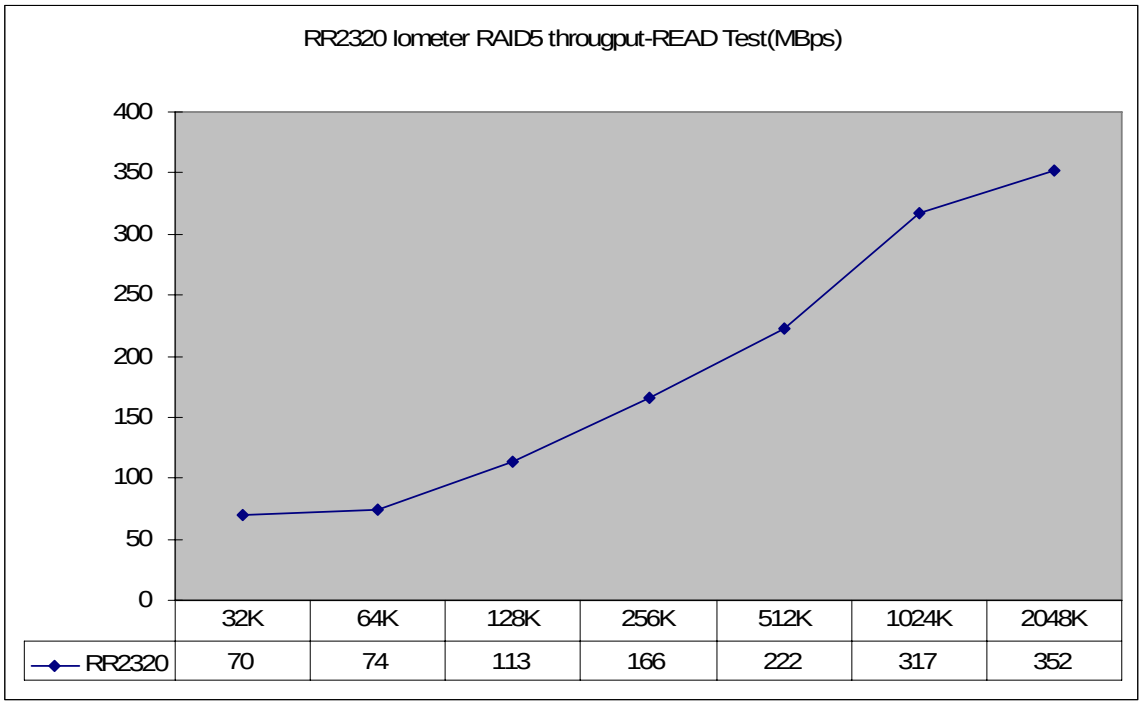
RAID 5 Fileserver I/Ops



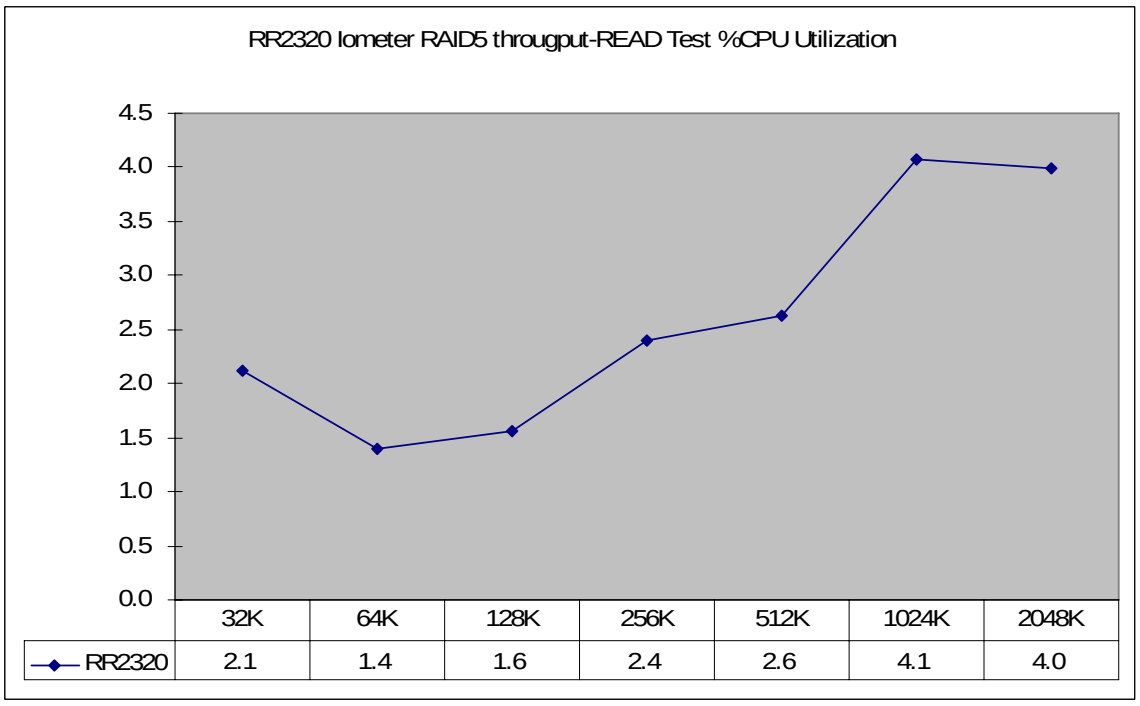
RAID 5 Fileserver %CPU



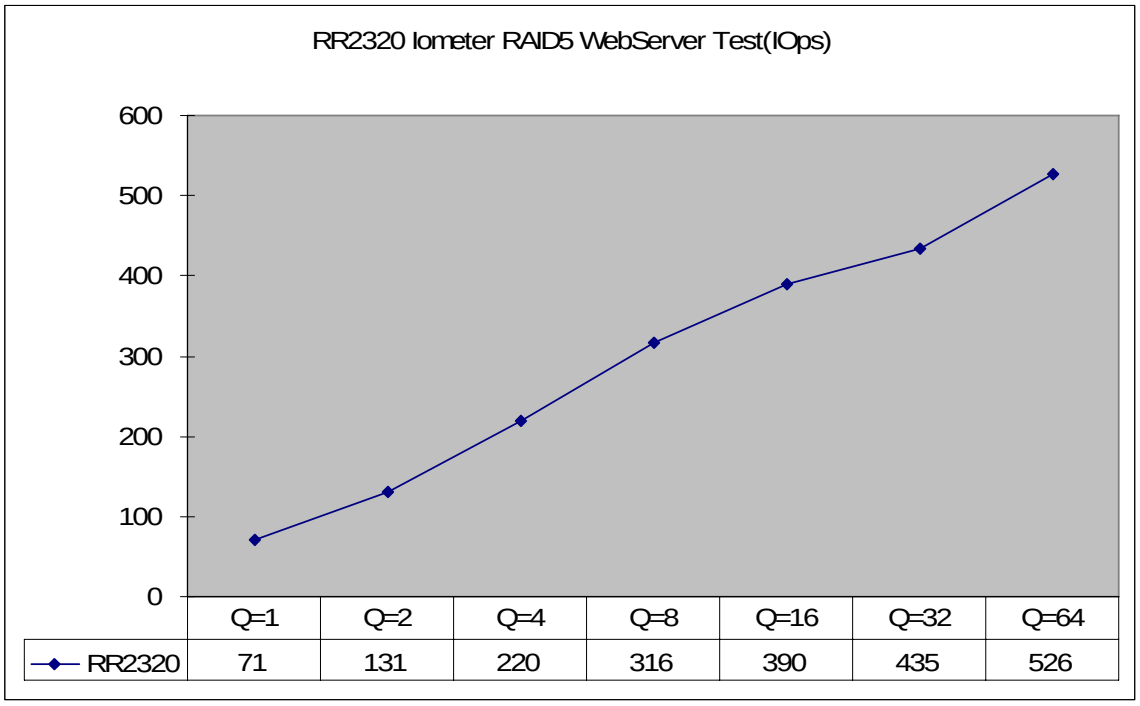
RAID 5 Throughput READ I/Ops



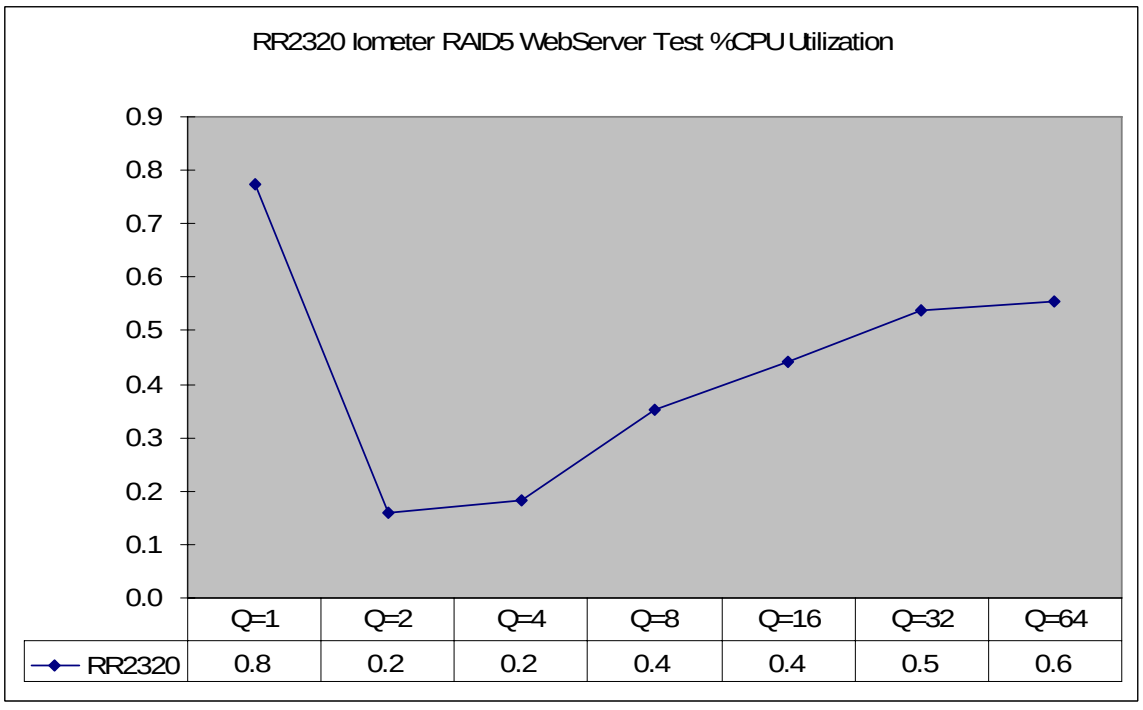
RAID 5 Throughput READ %CPU



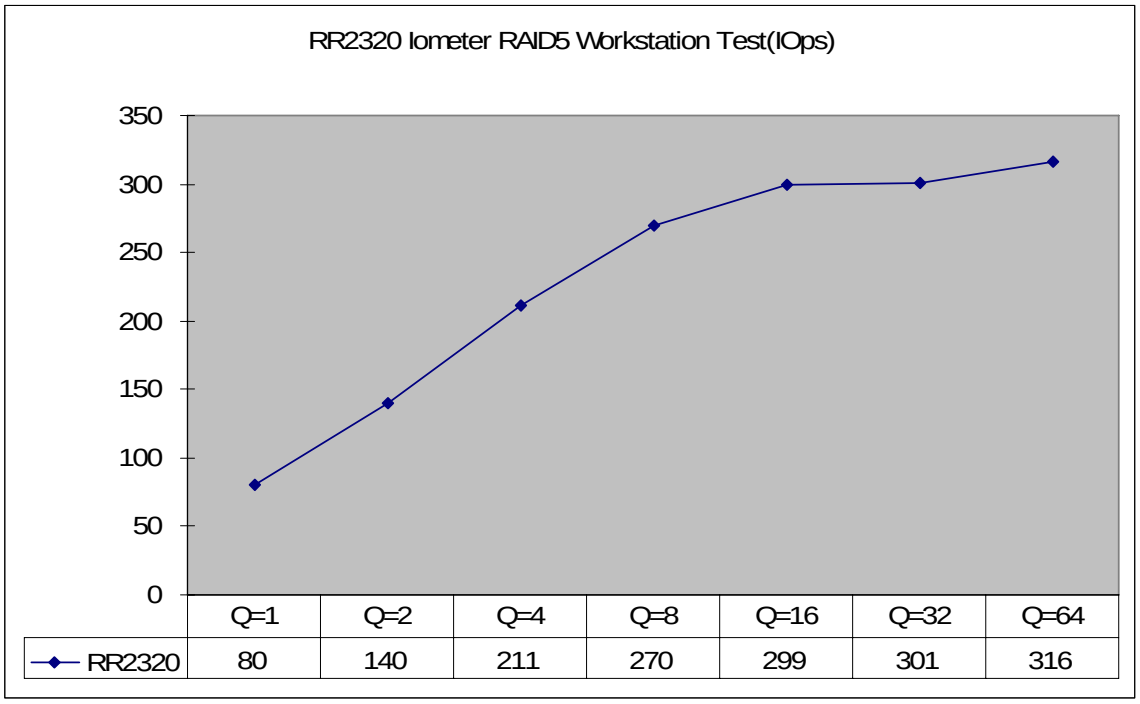
RAID 5 Web server I/Ops



RAID 5 Web server %CPU



RAID 5 Workstation I/Ops



RAID 5 Workstation %CPU