A3 Performance and Security Data
Single Core / Single Thread Benchmarks

Latency:

Records	Search	Get/Put	Insert/Delete	Index
100 million	3.0 micro sec	< 200 nano sec	< 100 nano sec	3.0 micro sec
1 billion	4.1 micro sec	< 200 nano sec	< 100 nano sec	4.1 micro sec
100 billion (est)	6.3 micro sec	< 200 nano sec	< 100 nano sec	6.3 micro sec
1 trillion (est)	7.4 micro sec	< 200 nano sec	< 100 nano sec	7.4 micro sec
100 trillion (est)	9.6 micro sec	< 200 nano sec	< 100 nano sec	9.6 micro sec
* Single core, single thread				

Throughput (millions of transactions per minute):

Records	Search	Get/Put	Insert/Delete	Index
100 million	20.3 million/sec	300 million	600 million	120 million
1 billion	14.8 million/sec	300 million	600 million	120 million
100 billion (est)	9.6 million/sec	300 million	600 million	120 million
1 trillion (est)	7.4 million/sec	300 million	600 million	120 million
100 trillion (est)	9.6 million/sec	300 million	600 million	120 million

Benchmark Notes:

Performed by	Independent benchmarks performed by Purdue Enterprise Company, LLC.
Desktop	AMD Phenom II 6 core, 64 bit CPU @ 2.6 GHz, 16GB of 1600 MHz memory, single SATA disk, Linux OS.
Server	4 x AMD 8 core, 64 bit CPU @ 2.6 GHz, 512 GB of 1300 MHz memory, single SATA disk, Linux OS
Data	Random data; no inspection, pre-conditioning, pre-sort, sharding, partitioning, or performance enhancements
Cache	Cache memory improves performance for small data sets
Environment	Benchmarks measured after extended operation to stabilize CPU temperature (i.e. general operating conditions); benchmarks averaged over multiple runs; some variability in runs due to operating system utilities.

Security Notes:

Level 1 PCI-compliant
ISO 27001 certified
SSAE16/32 audited infrastructure
MPAA aligned
Hardened infrastructure
FedRAMP ATO at Moderate impact level
Fips 140-2