

CS 739 - Project 1

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Appendix 1

1.1 Sample HTTP Request Packet:

Header	request line	PUT / HTTP/1.1
Header	general headers, request headers, entity headers	Date: Thu, 25 Sep 2014 18:45:24 GMT Connection: Close Host: localhost User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_9_5) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/37.0.2062.124 Safari/537.36 Content-Type: application/x-www-form-urlencoded Accept: */* Accept-Encoding: gzip, deflate, sdch Accept-Language: en-US,en;q=0.8
Empty line		
Message Body	url encoded	key=superman&value=a+hero+with+laser+eyes+who+can+fly
Message Trailers		

1.2 Sample HTTP Response Packet:

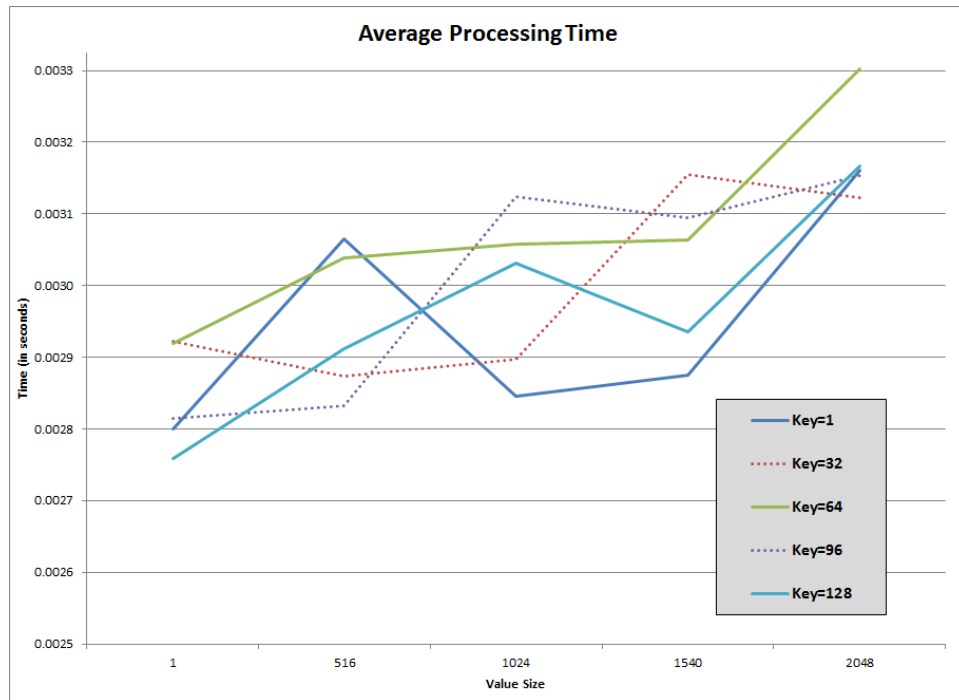
Header	status line	HTTP/1.1 201 Created
Header	general headers, response headers, entity headers	Date: Thu, 25 Sep 2014 18:45:24 GMT Connection: Close Server: Werkzeug/0.9.6 Python/2.7.6 Accept-Ranges: bytes Content-type: application/json Content-Length: 109 Last-Modified: Thu, 25 Sep 2014 18:45:24 GMT
Empty line		
Message Body	JSON encoded	{"old_value": "a+hero+with+laser+eyes+who+can+fly", "value": "a super fast hero with laser eyes who can fly"}

Appendix 2

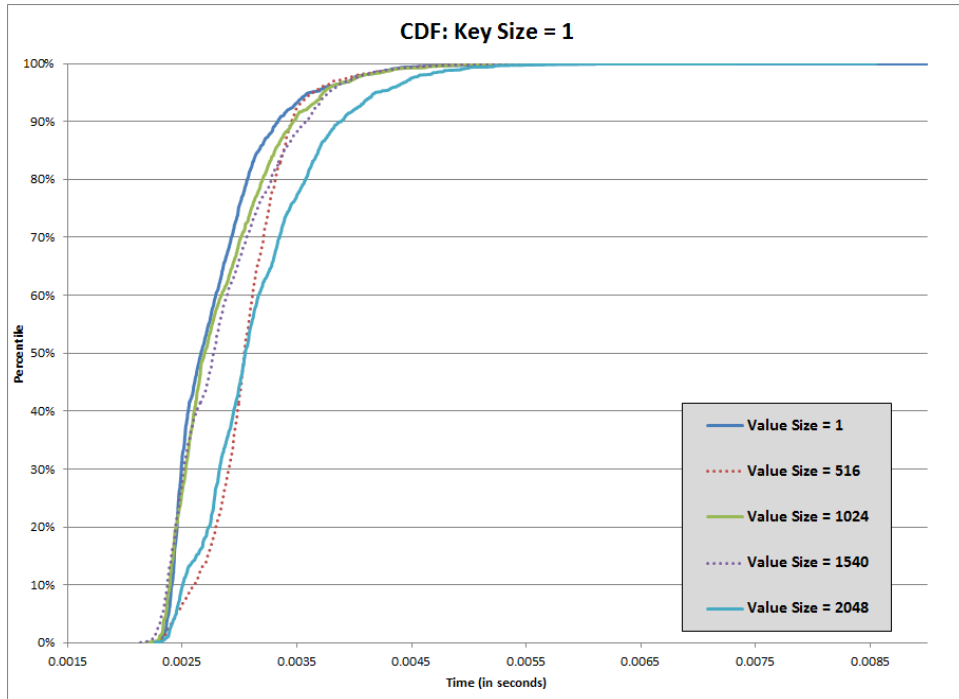
2.1 Summary of results for GET operation:

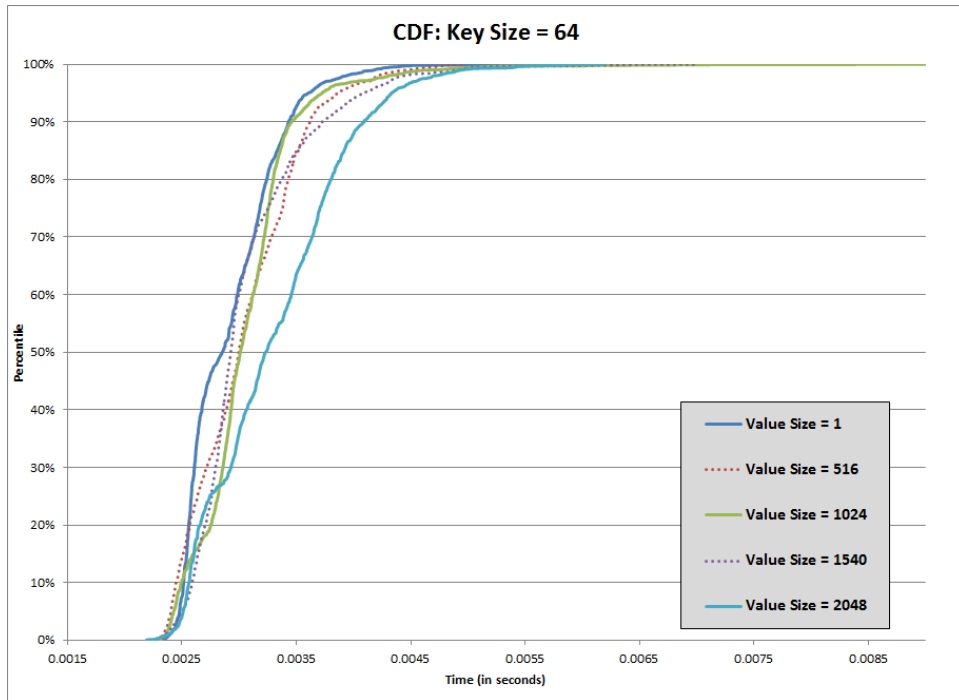
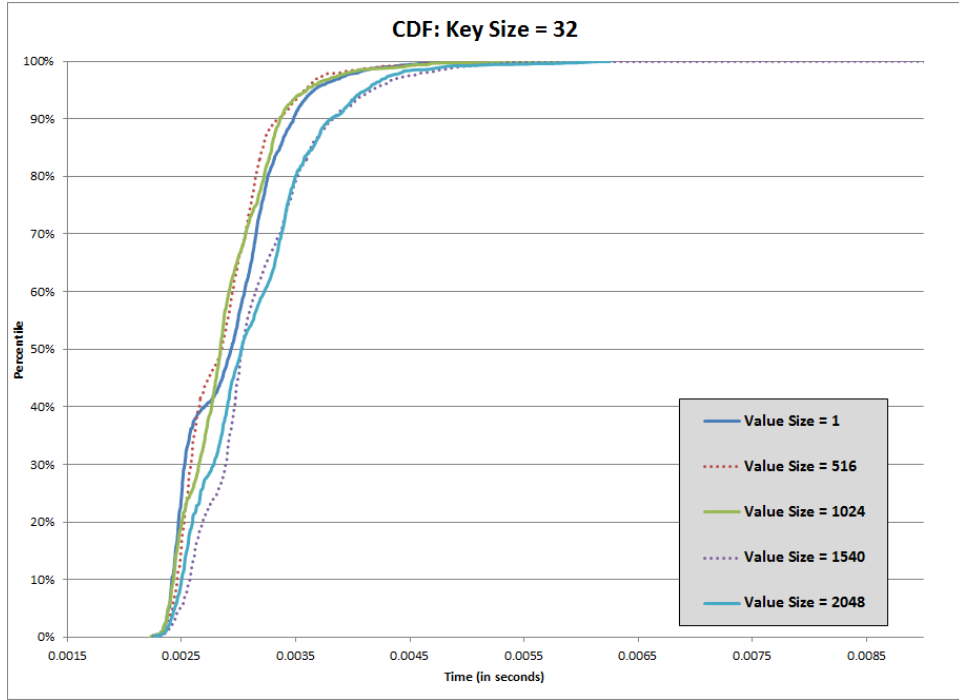
k	v	k+v	max	min	mean	sd
1	1	2	0.012227	0.002275	0.00279999625	0.00049597973
1	516	517	0.006125	0.002214	0.00306493812	0.00038202294
1	1024	1025	0.005718	0.002184	0.00284527500	0.00046788508
1	1540	1541	0.007306	0.002136	0.00287475250	0.00049432163
1	2048	2049	0.008550	0.002259	0.00316019125	0.00056502681
32	1	33	0.005344	0.002240	0.00292156313	0.00045200937
32	516	548	0.005825	0.002259	0.00287388625	0.00039960650
32	1024	1056	0.006095	0.002231	0.00289749750	0.00042423051
32	1540	1572	0.009517	0.002251	0.00315556438	0.00055220094
32	2048	2080	0.006261	0.002259	0.00312248250	0.00055602449
64	1	65	0.006659	0.002246	0.00291982437	0.00040859965
64	516	580	0.004982	0.002224	0.00303904938	0.00047685592
64	1024	1088	0.009215	0.002278	0.00305735853	0.00048060943
64	1540	1604	0.007014	0.002225	0.00306375938	0.00051535784
64	2048	2112	0.006196	0.002191	0.00330242000	0.00061202929
96	1	97	0.010492	0.002251	0.00281410500	0.00044629477
96	516	612	0.006980	0.002230	0.00283253188	0.00039878719
96	1024	1120	0.007295	0.002299	0.00312378375	0.00044820021
96	1540	1636	0.010004	0.002384	0.00309391000	0.00046608919
96	2048	2144	0.006984	0.002351	0.00315315375	0.00056805626
128	1	129	0.005486	0.002247	0.00275910813	0.00041347064
128	516	644	0.007845	0.002324	0.00291128438	0.00048207842
128	1024	1152	0.052292	0.002180	0.00303072625	0.00129416789
128	1540	1668	0.007545	0.002280	0.00293477813	0.00040335395
128	2048	2176	0.008681	0.002285	0.00316712625	0.00059590844

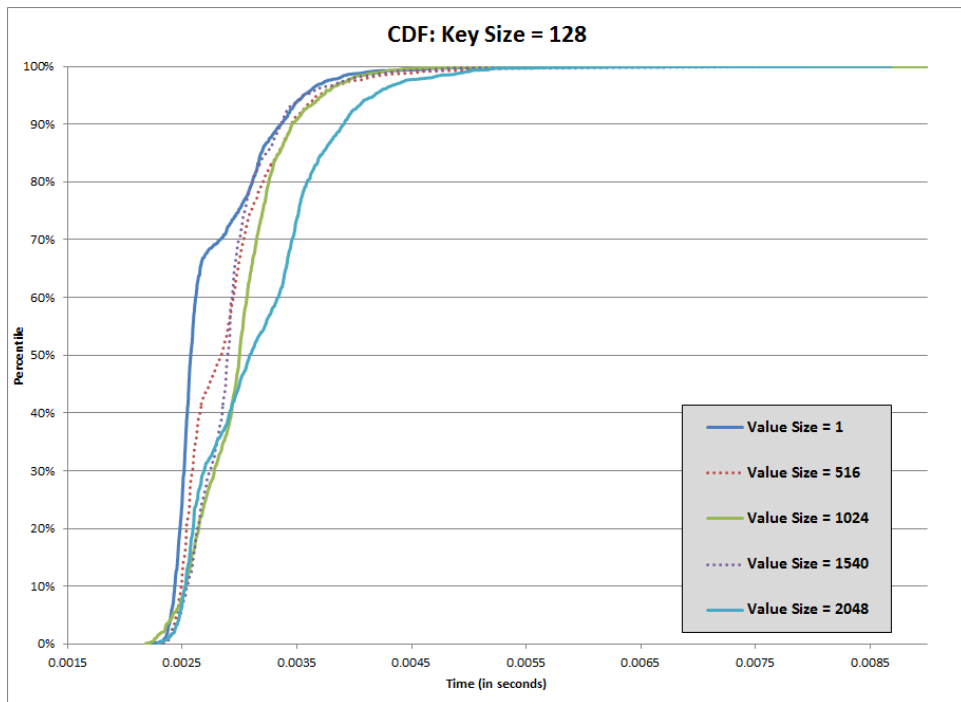
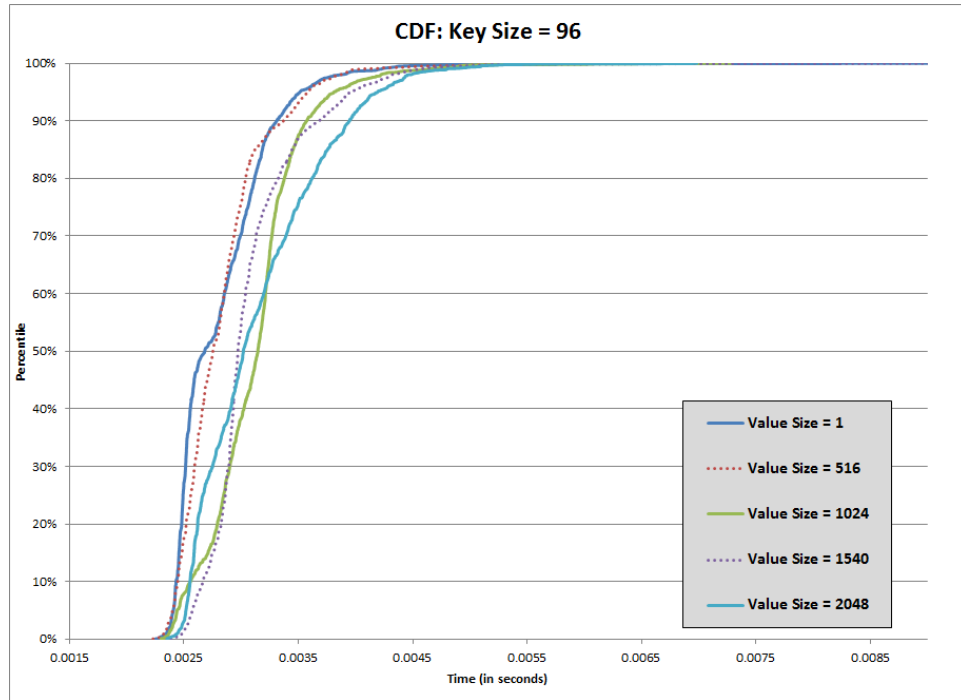
2.2 Average Processing Time for GET



2.3 Cumulative Distribution Frequency for GET





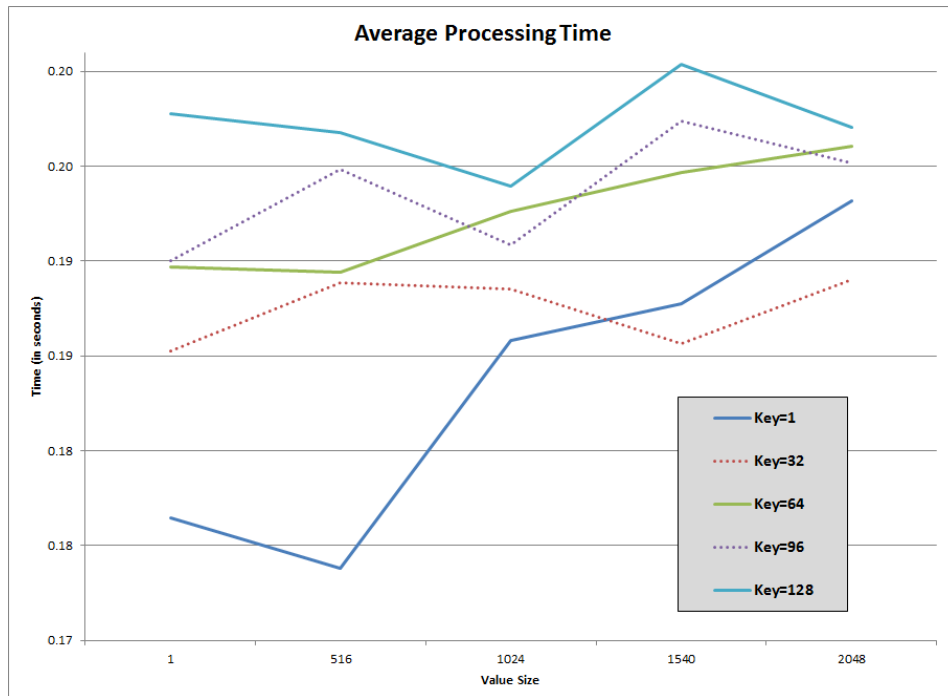


Appendix 3

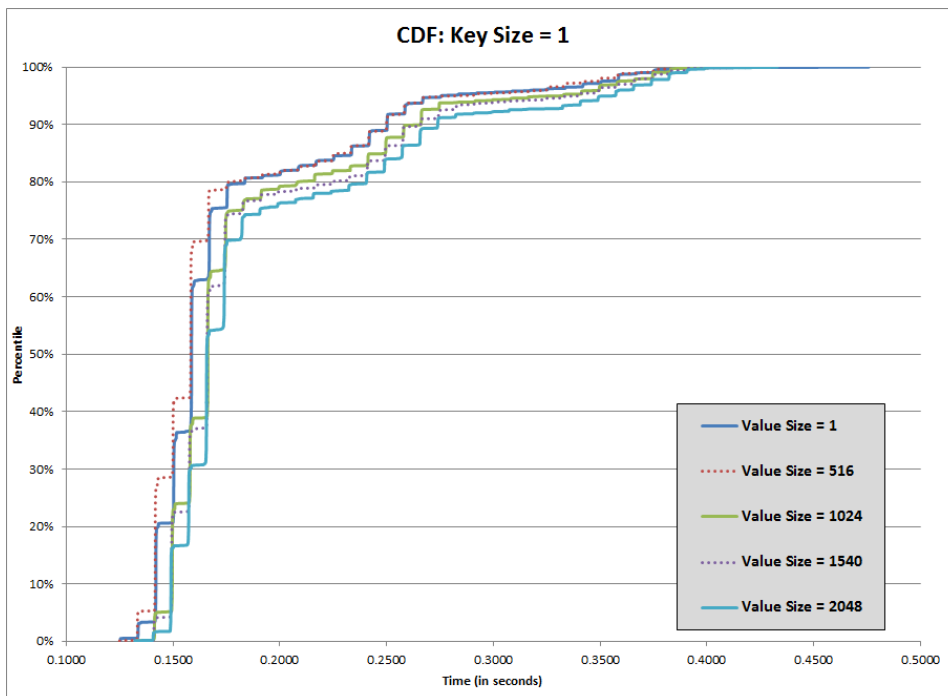
3.1 Summary of results for PUT operation:

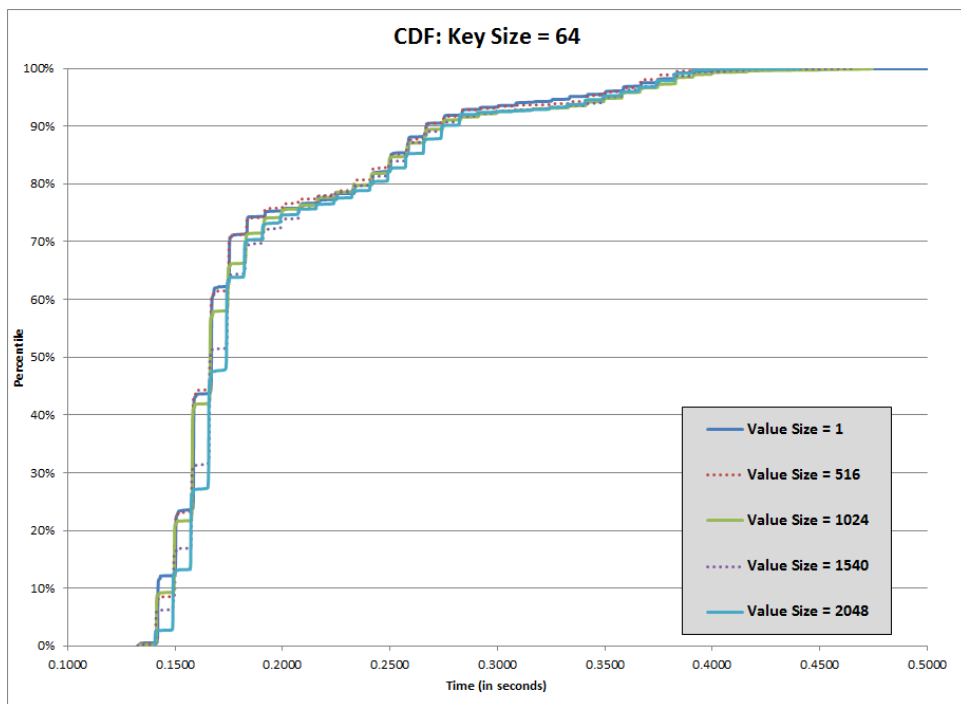
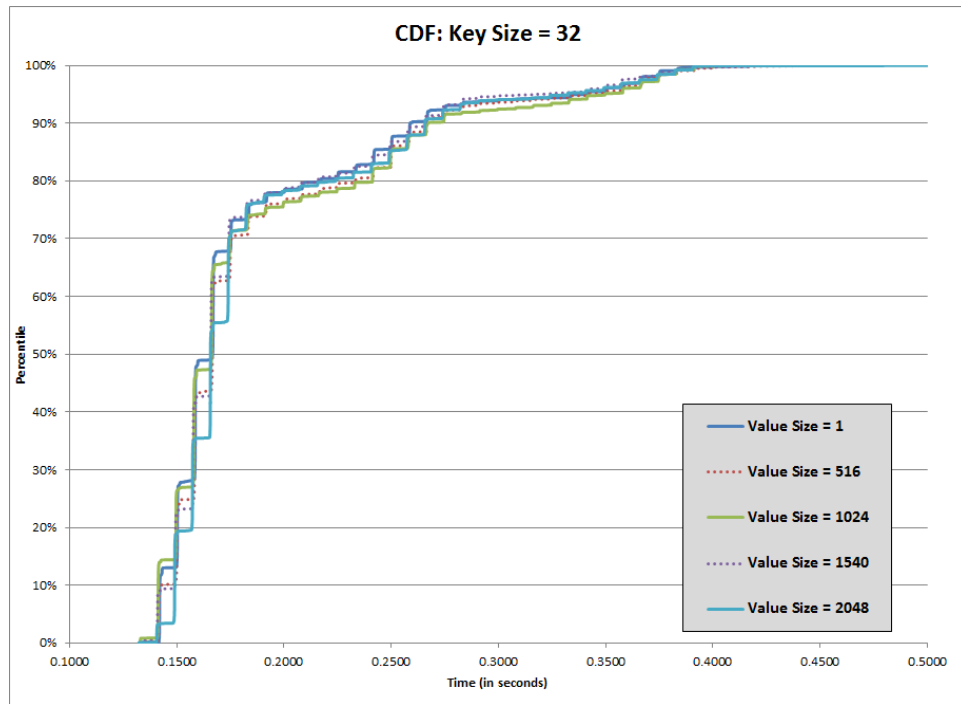
k	v	k+v	max	min	mean	sd
1	1	2	0.475717	0.125255	0.17647565875	0.05095726670
1	516	517	0.431625	0.124904	0.17381257688	0.05111235585
1	1024	1025	0.429458	0.132944	0.18581122500	0.05431239528
1	1540	1541	0.433688	0.140633	0.18775609688	0.05627786901
1	2048	2049	0.432984	0.132097	0.19314875438	0.06026413985
32	1	33	0.418208	0.133598	0.18522824438	0.05661469374
32	516	548	0.445905	0.132754	0.18885591125	0.05870438826
32	1024	1056	0.461172	0.132845	0.18853359063	0.06118163311
32	1540	1572	0.450610	0.132593	0.18565861813	0.05539881418
32	2048	2080	0.557450	0.132328	0.18904000500	0.05656550134
64	1	65	0.532746	0.133310	0.18966920688	0.05922985452
64	516	580	0.417381	0.132960	0.18941126313	0.05855348391
64	1024	1088	0.474514	0.132882	0.19264039600	0.06303415731
64	1540	1604	0.466027	0.132529	0.19468297375	0.06060174418
64	2048	2112	0.440701	0.140575	0.19606848938	0.05979398816
96	1	97	0.435793	0.133536	0.18999593563	0.05786062897
96	516	612	0.526269	0.133205	0.19485835438	0.06184670628
96	1024	1120	0.457795	0.132877	0.19081835500	0.06079517347
96	1540	1636	0.557712	0.132454	0.19735985375	0.06143379596
96	2048	2144	0.423528	0.140291	0.19518302938	0.05848658637
128	1	129	0.458201	0.133538	0.19776057188	0.06275928810
128	516	644	0.424857	0.133177	0.19678936688	0.06250547932
128	1024	1152	0.541456	0.132860	0.19395265063	0.06190408828
128	1540	1668	0.425374	0.132634	0.20038873500	0.06370195974
128	2048	2176	0.424369	0.132346	0.19702790813	0.06011823935

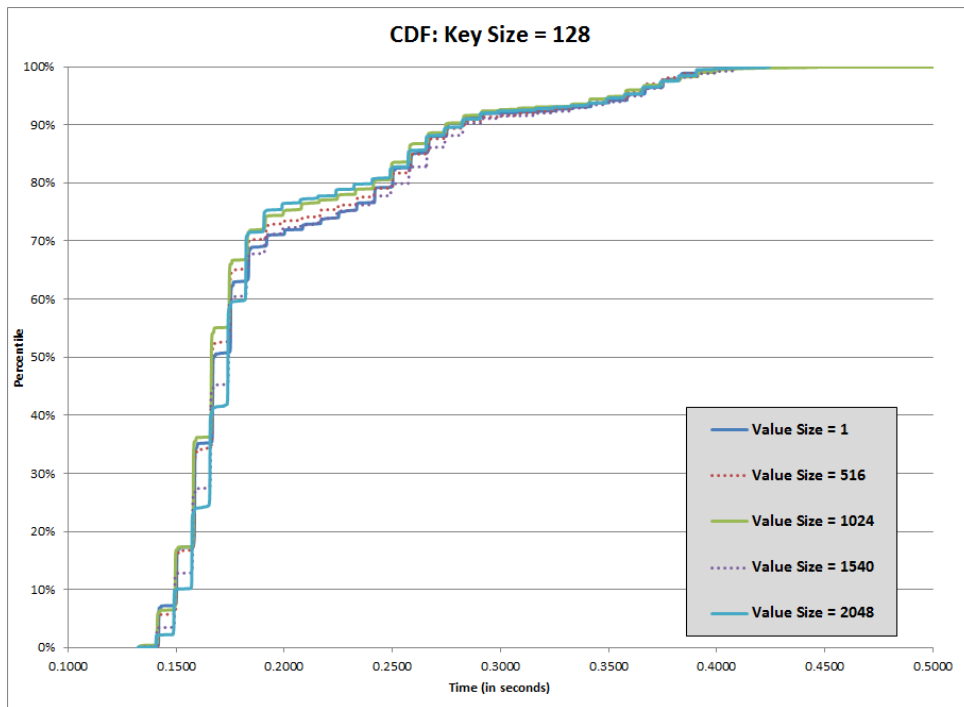
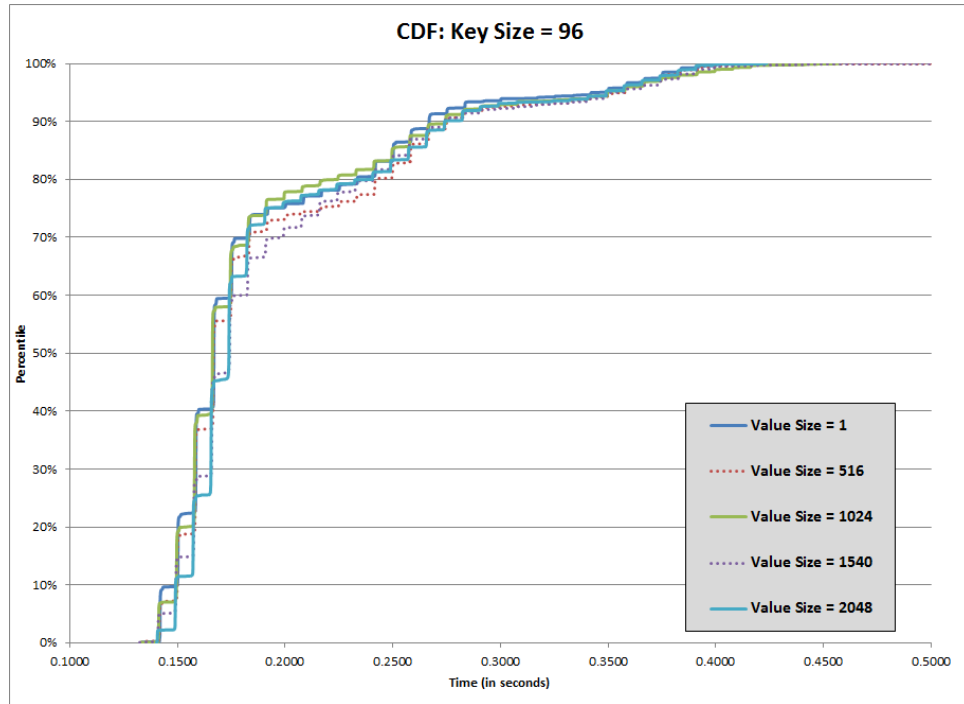
3.2 Average Processing Time for PUT



3.3 Cumulative Distribution Frequency for PUT





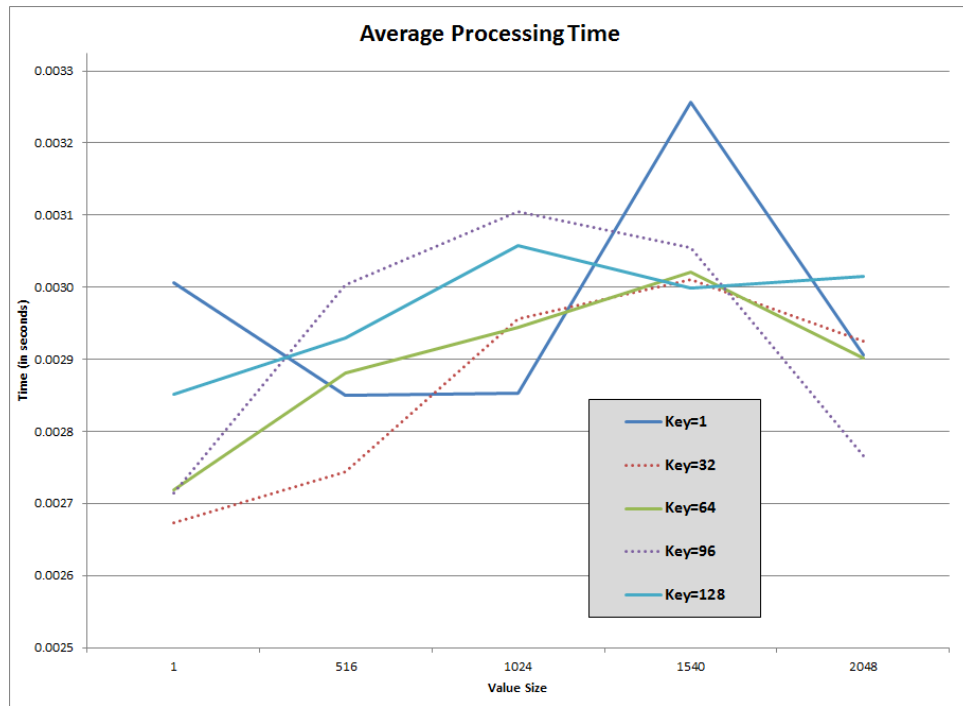


Appendix 4

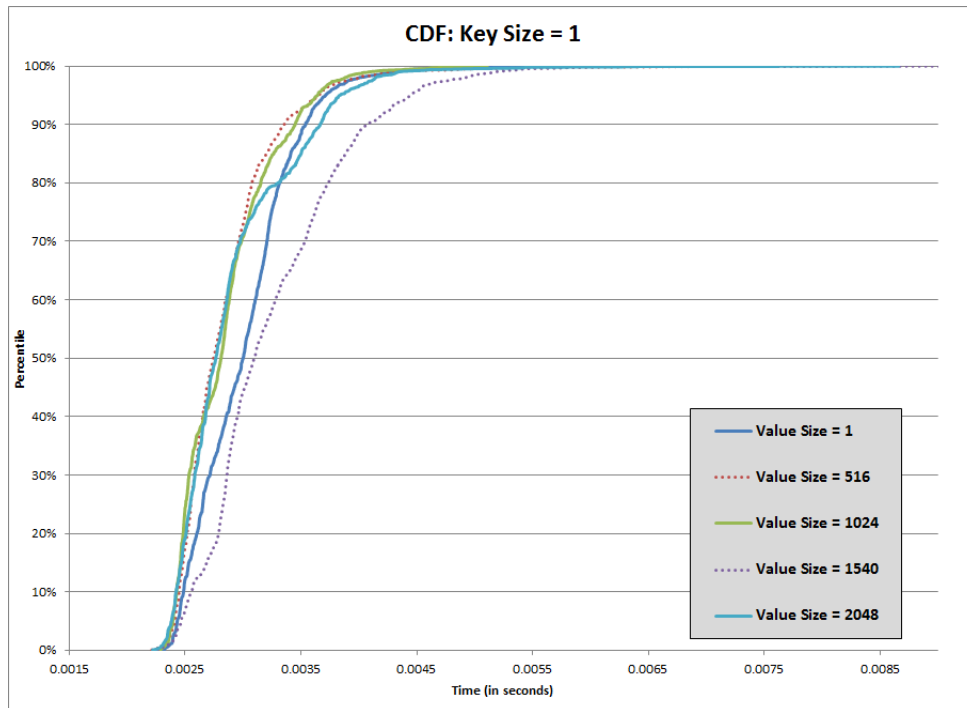
4.1 Summary of results for DELETE operation:

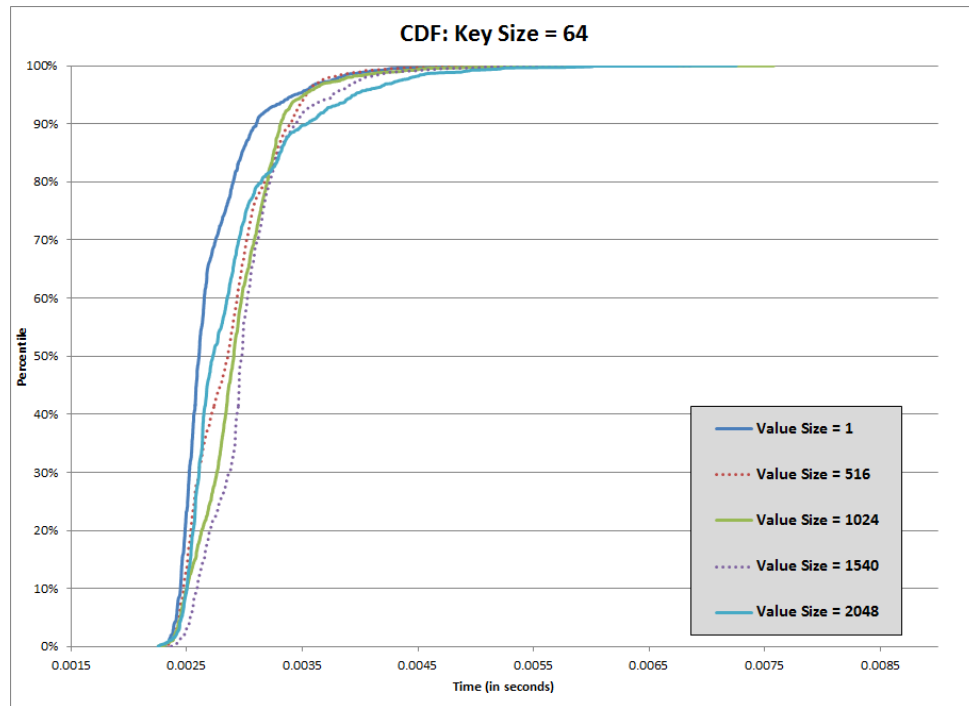
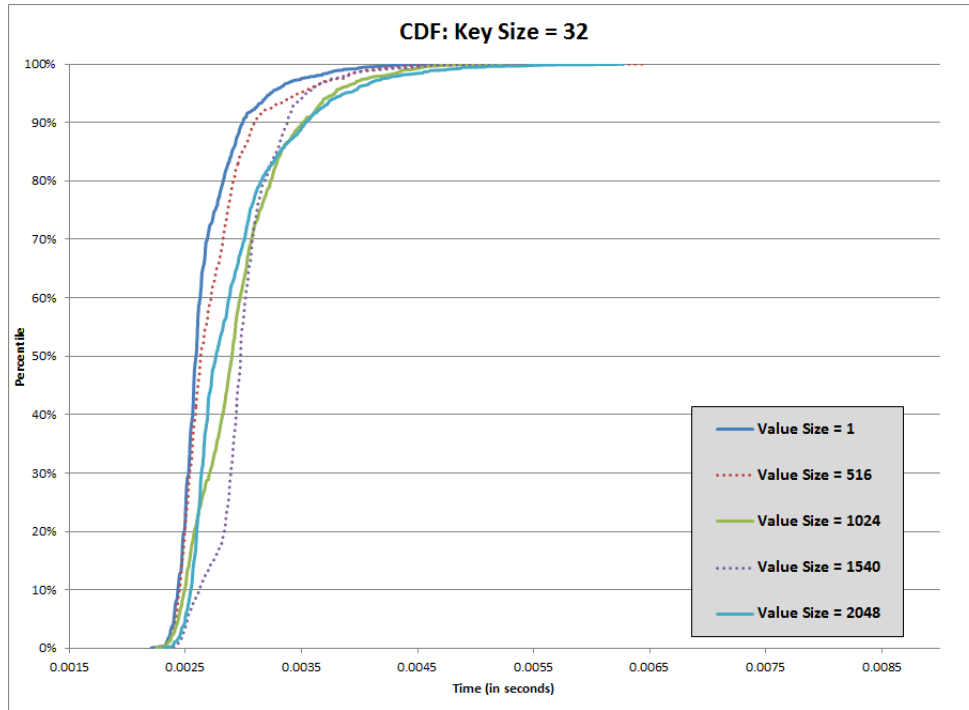
k	v	k+v	max	min	mean	sd
1	1	2	0.005831	0.002305	0.00300617125	0.00043005053
1	516	517	0.008155	0.002212	0.00284958125	0.00045606543
1	1024	1025	0.005109	0.002264	0.00285321125	0.00041258500
1	1540	1541	0.009264	0.002264	0.00325676313	0.00063506265
1	2048	2049	0.008662	0.002218	0.00290635375	0.00052027323
32	1	33	0.004672	0.002205	0.00267383688	0.00028894304
32	516	548	0.006476	0.002289	0.00274443188	0.00035702743
32	1024	1056	0.005220	0.002246	0.00295663938	0.00042662347
32	1540	1572	0.005226	0.002343	0.00300994313	0.00031772472
32	2048	2080	0.006273	0.002314	0.00292575500	0.00047264849
64	1	65	0.006202	0.002275	0.00271855500	0.00036106084
64	516	580	0.005246	0.002290	0.00288040812	0.00037496963
64	1024	1088	0.007580	0.002254	0.00294379325	0.00038998757
64	1540	1604	0.006907	0.002367	0.00302125625	0.00039209938
64	2048	2112	0.007255	0.002251	0.00290184688	0.00051308697
96	1	97	0.006841	0.002253	0.00271404625	0.00031416625
96	516	612	0.006687	0.002277	0.00300368000	0.00046373986
96	1024	1120	0.013367	0.002352	0.00310510250	0.00050086319
96	1540	1636	0.005292	0.002343	0.00305424063	0.00036946523
96	2048	2144	0.005611	0.002327	0.00276598375	0.00033908762
128	1	129	0.057912	0.002242	0.00285169125	0.00142887162
128	516	644	0.009693	0.002223	0.00292994813	0.00054216176
128	1024	1152	0.008131	0.002399	0.00305708438	0.00043769306
128	1540	1668	0.007259	0.002342	0.00299908375	0.00039572249
128	2048	2176	0.005504	0.002341	0.00301476250	0.00043903861

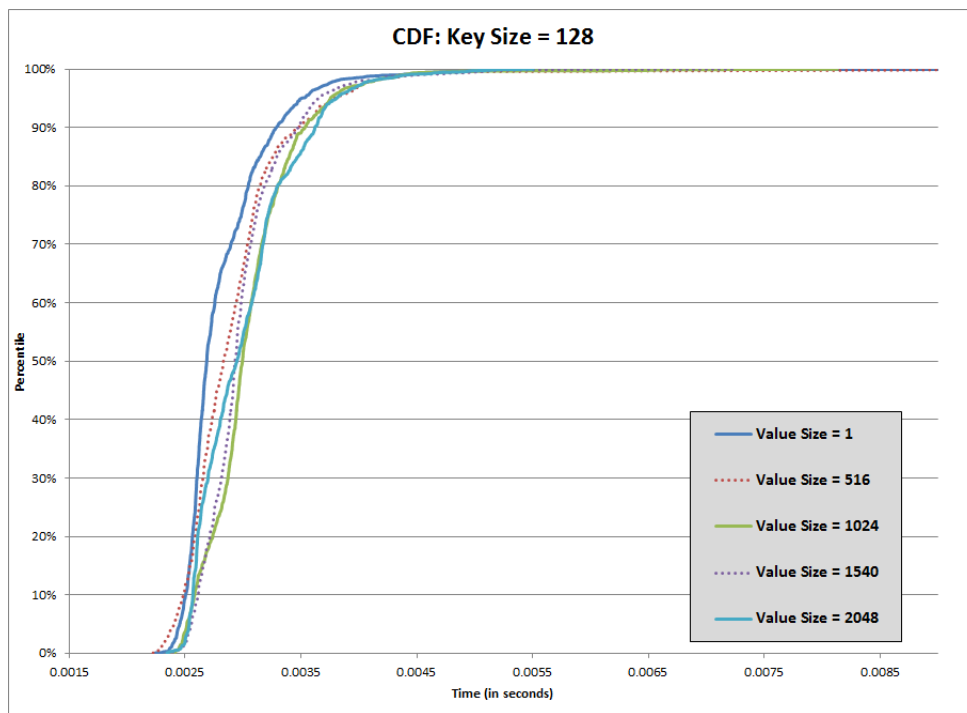
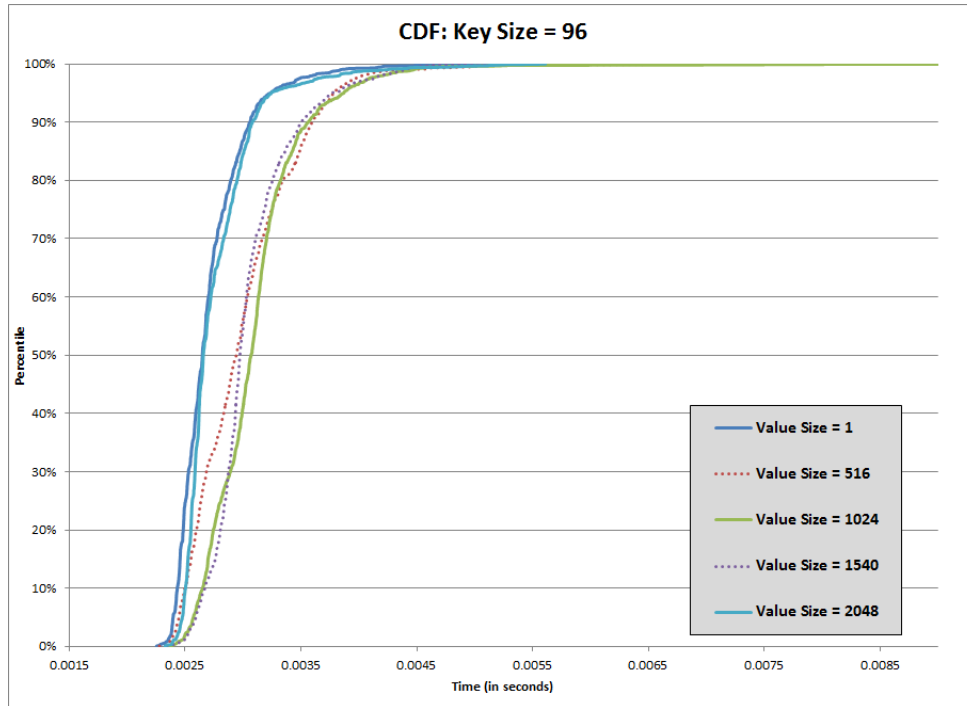
4.2 Average Processing Time for DELETE



4.3 Cumulative Distribution Frequency for DELETE





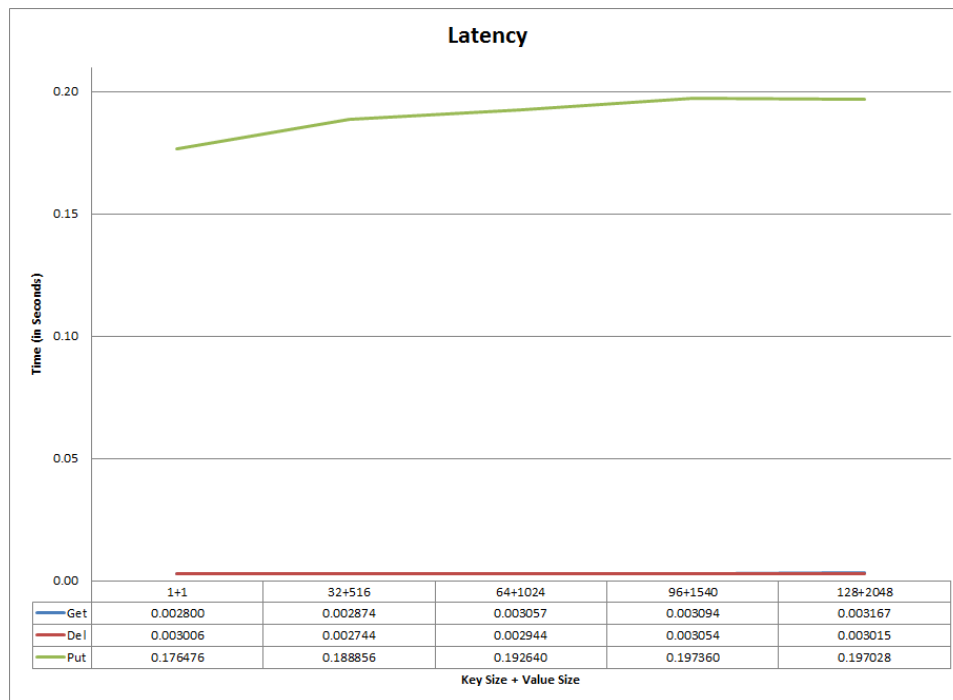


Appendix 5

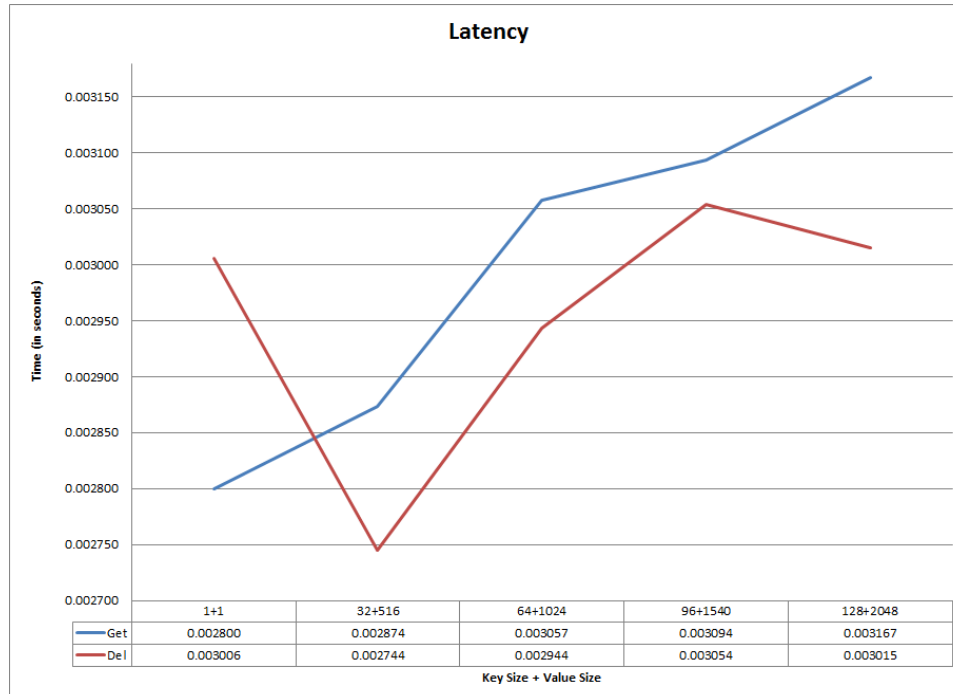
5.1 Summary of results for Latency:

	Key Size	Value Size	Max	Min	Mean	Std. D
Get	1	1	0.012227	0.002275	0.002800	0.000496
	32	516	0.005825	0.002259	0.002874	0.000400
	64	1024	0.009215	0.002278	0.003057	0.000481
	96	1540	0.010004	0.002384	0.003094	0.000466
	128	2048	0.008681	0.002285	0.003167	0.000596
Del	1	1	0.005831	0.002305	0.003006	0.000430
	32	516	0.006476	0.002289	0.002744	0.000357
	64	1024	0.007580	0.002254	0.002944	0.000390
	96	1540	0.005292	0.002343	0.003054	0.000369
	128	2048	0.005504	0.002341	0.003015	0.000439
Put	1	1	0.475717	0.125255	0.176476	0.050957
	32	516	0.445905	0.132754	0.188856	0.058704
	64	1024	0.474514	0.132882	0.192640	0.063034
	96	1540	0.557712	0.132454	0.197360	0.061434
	128	2048	0.424369	0.132346	0.197028	0.060118

5.2 Latency for GET, PUT, DELETE:



5.3 Latency for GET, PUT:



Appendix 6

6.1 Summary of results for Throughput:

	Key Size	Value Size	Total Time	Ops/sec	Total Time
Get	1	1	1.119845	1785.96	17.940368
	32	516	1.237178	1616.58	18.643541
	64	1024	1.482252	1349.30	19.539376
	96	1540	1.650535	1211.73	11.424598
	128	2048	1.844143	1084.51	18.061800
Del	1	1	1.214787	1646.38	17.586941
	32	516	1.261509	1585.40	19.670323
	64	1024	1.315835	1519.95	21.535159
	96	1540	1.508882	1325.48	21.789014
	128	2048	1.720171	1162.67	20.277750
Put	1	1	163.184998	6.13	367.230562
	32	516	178.879732	5.59	398.717536
	64	1024	176.651766	5.66	406.548064
	96	1540	185.213480	5.40	442.420379
	128	2048	193.543744	5.17	420.046600

6.2 Summary of results for Throughput:

