

OSG CE GridFTP benchmarking - Security

Command:

```
globus-url-copy gsiftp://osg-gw-5.t2.ucsd.edu/osglocal/users/cms/uscms1369/test.myfile file:///dev/null &
```

Summary

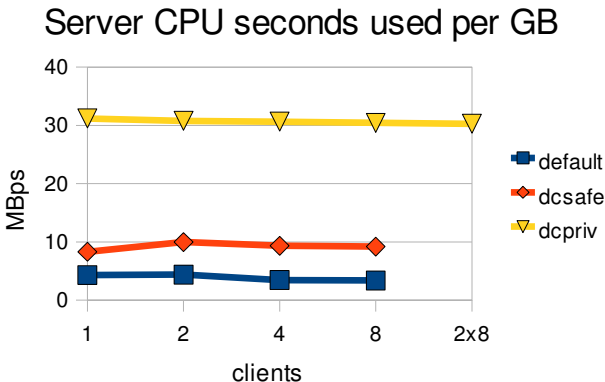
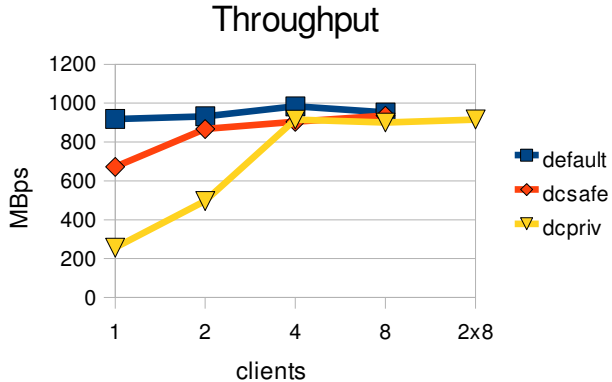
Throughput (Mbps)

Clients	1	2	4	8	2x8
default	918.84	932.4	983.61	952.29	
dcsafe	671.89	867.37	904.13	936.22	
dcpriv	256.14	496.38	915.86	900.56	916.07

Server CPU seconds used per GB

Clients	1	2	4	8	2x8
default	4.31	4.39	3.46	3.38	
dcsafe	8.31	9.97	9.35	9.19	
dcpriv	31.19	30.79	30.64	30.43	30.26

The server always had idle cycles



Detailed numbers

Server

	default			
	wallclock	CPU	user	sys
1x 1.5G	13.06	6.46	0.53	5.93
	918.84	4.31		
2x1.5G	21.18	7.04	0.81	6.23
	25.74	6.14	0.82	5.32
	932.4	4.39		
4x1.5G	29.29	5.88	0.67	5.21
	43.76	4.88	0.49	4.39
	48.62	4.91	0.51	4.4
	48.8	5.1	0.48	4.62
	983.61	3.46		
8x1.5G	55.02	5.88	0.6	5.28
	58.42	5.42	0.56	4.86
	64.41	5.52	0.53	4.99
	91.68	4.81	0.51	4.3
	96.82	4.83	0.51	4.32
	97.7	4.73	0.55	4.18
	99.45	4.63	0.76	3.87
	100.81	4.77	0.54	4.23
	952.29	3.38		

Client

	wallclock	CPU	user	sys
1x 1.5G	13.26	7.79	4.28	3.51
	904.98	5.19		
2x1.5G	21.4	8.61	4.15	4.46
	25.94	8.54	4.09	4.45
	925.21	5.72		
4x1.5G	29.51	9.09	4.35	4.74
	43.99	8.94	4.26	4.68
	48.84	9.1	4.35	4.75
	49.04	8.75	4.12	4.63
	978.79	5.98		
8x1.5G	55.32	8.87	4.28	4.59
	58.7	9.24	4.39	4.85
	64.71	9.37	4.45	4.92
	91.99	9.09	4.35	4.74
	97.11	9.52	4.47	5.05
	97.95	9.24	4.62	4.62
	99.74	9.36	4.41	4.95
	101.02	9.3	4.5	4.8
	950.31	6.17		

Sheet2

	dcsafe			
	wallclock	CPU	user	sys
1x 1.5G	17.86	12.46	8.43	4.03
	671.89	8.31		
2x1.5G	23.73	14.49	8.49	6
	27.67	15.43	8.8	6.63
	867.37	9.97		
4x1.5G	31.4	14.79	8.36	6.43
	32.07	13.7	8.16	5.54
	47.44	14.24	8.46	5.78
	53.09	13.36	8.26	5.1
	904.13	9.35		
8x1.5G	47.58	14.51	8.22	6.29
	64.12	14.29	8.25	6.04
	83.53	13.76	7.82	5.94
	95.77	13.89	8.19	5.7
	97.68	13.51	7.85	5.66
	100.27	13.27	7.87	5.4
	100.46	13.55	7.88	5.67
	102.54	13.5	8.01	5.49
	936.22	9.19		

	dcsafe			
	wallclock	CPU	user	sys
1x 1.5G	18.07	17.31	14.97	2.34
	664.08	11.54		
2x1.5G	23.94	18.64	15.08	3.56
	27.87	26.54	14.65	11.89
	861.14	15.06		
4x1.5G	31.64	23.58	14.63	8.95
	32.29	20.33	15.06	5.27
	47.66	17.91	14.81	3.1
	53.27	25.02	15.56	9.46
	901.07	14.47		
8x1.5G	47.9	20.79	15.03	5.76
	64.4	20.7	15.08	5.62
	83.88	21.18	14.83	6.35
	96.02	21.83	14.97	6.86
	97.95	20.5	15.13	5.37
	100.51	22.11	15.05	7.06
	100.74	19.59	15.04	4.55
	102.77	22.18	14.99	7.19
	934.12	14.07		

Sheet2

	dcpriv			
	wallclock	CPU	user	sys
1x 1.5G	46.85	46.78	39.86	6.92
	256.14	31.19		
2x1.5G	44.15	44.08	39.4	4.68
	48.35	48.28	39.53	8.75
	496.38	30.79		
4x1.5G	50.54	44.19	39.75	4.44
	52.41	43.56	39.64	3.92
	51.93	47.23	39.9	7.33
	52.41	48.86	40.03	8.83
	915.86	30.64		
8x1.5G	77.46	46.07	39.48	6.59
	84.04	45.11	39.73	5.38
	88.33	46.23	40.02	6.21
	88.46	45.38	39.69	5.69
	90.88	45.27	39.69	5.58
	97.1	46.94	39.97	6.97
	105.51	44.97	39.77	5.2
	106.6	45.24	39.57	5.67
	900.56	30.43		
2x8x1,5G (still 12% idle)	113.25	44.98	40.07	4.91
	118.15	44.94	39.77	5.17
	132.78	45.81	40.24	5.57
	140.72	45.18	39.8	5.38

	dcpriv			
	wallclock	CPU	user	sys
1x 1.5G	47.05	34.41	30.31	4.1
	255.05	22.94		
2x1.5G	44.34	36.47	29.88	6.59
	48.55	38.01	30.35	7.66
	494.34	24.83		
4x1.5G	50.75	41.03	29.96	11.07
	52.61	37.23	30.16	7.07
	52.07	36.12	30.09	6.03
	52.6	36.13	29.94	6.19
	912.37	25.09		
8x1.5G	77.71	35.06	30.19	4.87
	84.61	35.92	29.78	6.14
	88.67	36.53	30.12	6.41
	88.88	36.16	30.34	5.82
	91.49	36.3	30.12	6.18
	97.29	37.13	30.16	6.97
	107.15	36.98	30.31	6.67
	107.31	37.44	30.32	7.12
	894.6	24.29		
2x8x1,5G	113.64	36.15	29.99	6.16
	118.57	35.84	30.17	5.67
	133.09	34.47	30.06	4.41
	140.1	36.22	30.14	6.08

Sheet2

143.29	46.35	40.24	6.11
152.63	45.69	40	5.69
175.9	45.62	39.97	5.65
172.86	45.28	39.64	5.64
170.58	44.87	39.73	5.14
188.22	45.48	40.24	5.24
188.67	45.4	39.88	5.52
188.56	45.29	39.82	5.47
196.9	45.38	39.58	5.8
200.93	46.38	39.97	6.41
196.95	44.56	40.01	4.55
209.59	45.1	39.8	5.3
916.07	30.26		

143.55	37.11	30.02	7.09
176.8	38.16	30.31	7.85
198.74	35.83	29.99	5.84
201.97	35.19	30.14	5.05
155.13	35.6	30.33	5.27
173.72	35.33	30.15	5.18
171.17	36.07	29.81	6.26
189.01	35.17	30.29	4.88
189.78	36.5	30.04	6.46
188.97	35.53	30.11	5.42
198.82	35.15	30.28	4.87
210.83	37.11	30.17	6.94
910.69	23.98		

Hardware

2 x AMD Opteron 275 (4 cores total)

8GB of memory

OSG 1.0

CentOS? 5.2 (x86_64)

Reading always the same file, from memory cache