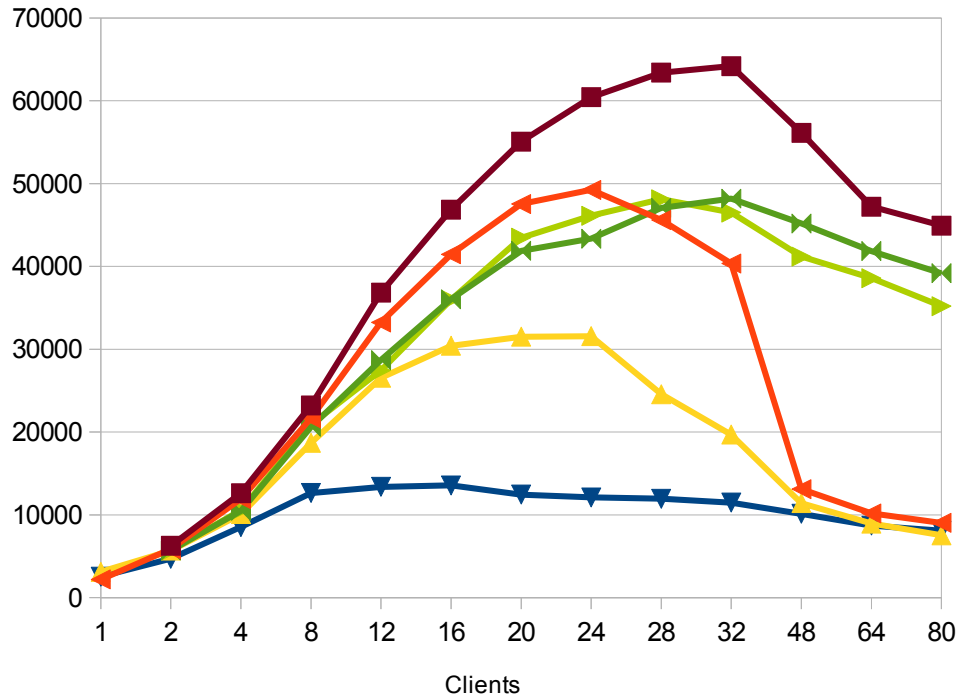


Pgbench LAN

Pgbench Postgres 9.1 averaged Transaction Per Second, 2x Xeon X5650 / 96GB, LAN													
Clients	1	2	4	8	12	16	20	24	28	32	48	64	80
DragonFly 2.10	2548	4708	8533	12635	13382	13556	12441	12106	11949	11491	10134	8707	8082
Dfly 2.13 dm	3125	5686	10101	18701	26559	30419	31509	31580	24565	19695	11421	8962	7534
Dfly 2.13 dm + sup		5703	10577	20909	27435	35973	43456	46104	48105	46487	41186	38575	35205
2.13 dm + sup + shartok		5702	10478	20638	28690	36033	41877	43344	47055	48181	45179	41844	39169
FreeBSD 9-RC1	2210	5867	11917	21675	33237	41466	47523	49231	45601	40349	13099	10174	9028
FreeBSD 9-RC1 + sup		6267	12624	23219	36830	46852	55066	60423	63386	64178	56133	47205	44924

Pgbench Transactions Per Second



- PostgreSQL 9.1.1
- pgbench scale factor = 1600
- shared_buffers = 8GB (dfly 2.10: 1GB)
- effective_cache_size = 48GB
- update_process_title = off

dmalloc is enabled by default on x86_64
sup means kern.ipc.shm_use_phys=1

shartok means shared tokens

- 2x Xeon X5650 (6 cores, 12 threads, 2.66 GHz)
- 12 cores, 24 hardware threads total
- 96 GB RAM

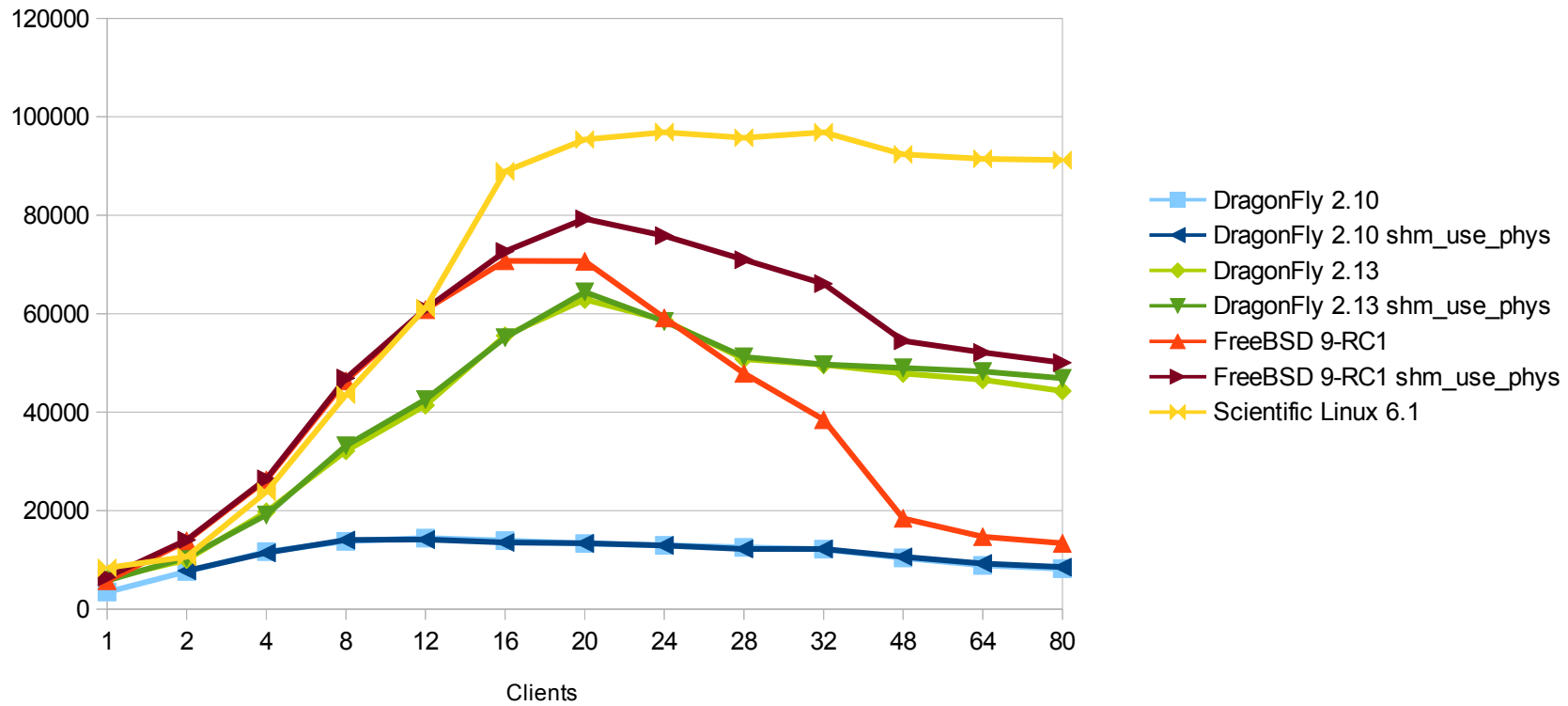
- one 30-minute run to warm up the base at startup
- 3x 10 minutes runs per data point, averaged

Client machine : Core 2 Duo 3GHz
1 Gb/s ethernet link

Pgbench Postgres 9.1 Transactions Per Second, 2x Xeon X5650 / 96GB, localhost													
Clients	1	2	4	8	12	16	20	24	28	32	48	64	80
DragonFly 2.10	3471	7637	11668	13777	14425	13940	13332	12961	12555	12180	10389	8892	8203
DragonFly 2.10 shm_use_phys		7809	11423	14033	14120	13542	13368	12930	12242	12242	10630	9274	8520
DragonFly 2.13	6155	10038	19750	32137	41412	55547	62876	58707	50762	49621	47853	46566	44318
DragonFly 2.13 shm_use_phys	5817	10471	19121	33201	42565	55141	64441	58428	51226	49679	48989	48271	46899
FreeBSD 9-RC1	5758	13866	26243	46382	60839	70732	70683	59148	47888	38485	18431	14699	13377
FreeBSD 9-RC1 shm_use_phys	6529	14036	26449	46907	60975	72658	79259	75850	70960	66120	54502	52118	50056
Scientific Linux 6.1	8397	10626	23808	43530	61131	88918	95371	96868	95735	96845	92368	91481	91200

DragonFly 2.13 version used : 2011-11-13 (commit 2b5efa24be5bc7dadce29fc327ca9916aeb0f8) + shared tokens support

127.0.0.1 Pgbench TPS



Results

Detailed TPS results, including connection establishing time, Athlon64 x2 2GHz, 2GB													
Clients	1	2	4	8	12	16	20	24	28	32	48	64	80
FreeBSD 9, run #1	2045	4012	4947	5356	5157	5246	5242	5157	5110	5027	5097	4756	4763
FreeBSD 9, run #2	2091	4017	5644	5365	5192	5231	5227	5138	5120	5036	5147	4755	4775
FreeBSD 9, run #3	2104	4015	5509	5381	5243	5253	5217	5159	5123	5039	5096	4762	4799

Detailed TPS results, including connection establishing time, Phenom2 x4 3.5 GHz, 8GB													
Clients	1	2	4	8	12	16	20	24	28	32	48	64	80
FreeBSD 9, run #1	4857	9803	19323	27245	34388	32027	30465	28464	28588	26142	25148	26149	23919
FreeBSD 9, run #2	4820	9907	19594	25998	34034	32527	30784	28122	28388	26748	25282	26189	23737
FreeBSD 9, run #3	4826	9906	19520	26439	33969	32145	30485	28406	28364	26967	25278	26058	23711

Detailed TPS results, including connection establishing time, 2x Xeon X5650 (6 cores, 12 threads, 2.66 GHz)													
Clients	1	2	4	8	12	16	20	24	28	32	48	64	80
DragonFly 2.10, run #1	2572	4647	8626	12720	13493	13610	12640	12198	11992	11533	10193	8891	8171
DragonFly 2.10, run #2	2532	4792	8422	12625	13389	13540	12318	12124	11903	11500	10128	8618	8094
DragonFly 2.10, run #3	2539	4686	8551	12560	13264	13516	12367	11997	11952	11440	10081	8611	7981
DragonFly 2.13, run #1	2744	5369	9948	18197	23997	26252	30359	30672					
DragonFly 2.13, run #2	2839	5148	9644	18057	23352	26559	27339	32554					
DragonFly 2.13, run #3	2970	5274	9836	18703	23910	25292	28589	30816					
Dfly 2.13 dmalloc, run #1	3122	5620	9197	18568	25689	30151	31836	32003	24952	19250	11494	9139	7510
Dfly 2.13 dmalloc, run #2	3126	5763	10517	19251	26848	31150	31137	30992	23952	20313	11532	9161	7517
Dfly 2.13 dmalloc, run #3	3128	5675	10589	18284	27138	29956	31552	31744	24790	19522	11238	8587	7575
2.13 dmalloc + select fix #1		5503	10779	19815	24169	33857	36624	41028	39570	37959			
2.13 dmalloc + select fix #2		5592	10860	19111	24616	32897	36018	41128	39959	37071			
2.13 dmalloc + select fix #3		5206	10574	20092	27139	33699	36555	41191	40175	36632			
FreeBSD 9, run #1	3065	6552	12659	22209	36058	45199	52888	53062	49470	42193	19628	15394	13551
FreeBSD 9, run #2	3565	5841	12517	22724	36514	45501	53124	53439	47159	42221	19669	15129	13532
FreeBSD 9, run #3	3069	6422	12967	23895	36300	46394	53042	53050	47691	42155	19665	15090	13550
dfly 2.13 + shm_use_phys		5703	10577	20909	27435	35973	43456	46104	48105	46487	41186	38575	35205
FreeBSD + shm_use_phys		6267	12624	23219	36830	46852	55066	60423	63386	64178	56133	47205	44924
Dfly 2.13 shared tokens #1		5680	10236	20877	28349	35674	40598	47211	47425	48951	44350	41649	39853
Dfly 2.13 shared tokens #2		5768	10687	20142	29120	36133	42144	36995	46727	48359	45481	42790	38378
Dfly 2.13 shared tokens #3		5658	10511	20894	28600	36292	42890	45824	47012	47231	45705	41093	39275

Commands

Database initialization

SERVER=192.168.2.34

./pgbench -h \${SERVER} -i -s 1600 bench

Running the tests

SERVER=127.0.0.1

THREADS=1

CLIENTS=1

1st run, 30m to warm caches

./pgbench -h \${SERVER} -j \${THREADS} -c \${CLIENTS} -T 1800 -S bench

2nd runs, 10m each

they must then be averaged

./pgbench -h \${SERVER} -j \${THREADS} -c \${CLIENTS} -T 600 -S bench > result_1.1.txt

./pgbench -h \${SERVER} -j \${THREADS} -c \${CLIENTS} -T 600 -S bench > result_1.2.txt

./pgbench -h \${SERVER} -j \${THREADS} -c \${CLIENTS} -T 600 -S bench > result_1.3.txt

next runs, 10m each

we use 2 threads for these ones

Client number must be divisible by NUM_THREADS.

THREADS=2

for c in 2 4 8 12 16 20 24 28 32 48 64 80

do

./pgbench -h \${SERVER} -j \${THREADS} -c \${c} -T 600 -S bench > result_\${c}.1.txt

./pgbench -h \${SERVER} -j \${THREADS} -c \${c} -T 600 -S bench > result_\${c}.2.txt

./pgbench -h \${SERVER} -j \${THREADS} -c \${c} -T 600 -S bench > result_\${c}.3.txt

done

Tests were run with DragonFly 2.13 sources from 2011-11-10 to 2011-11-13

- dfly 2.13 + dmalloc: commit c17a6852f80ce59ea0641ae01d0b3c52f0584101

- dfly 2.13 + dmalloc + select fix: commit 945dadfd0a47b082487e1c3f5dee78ee86df4451