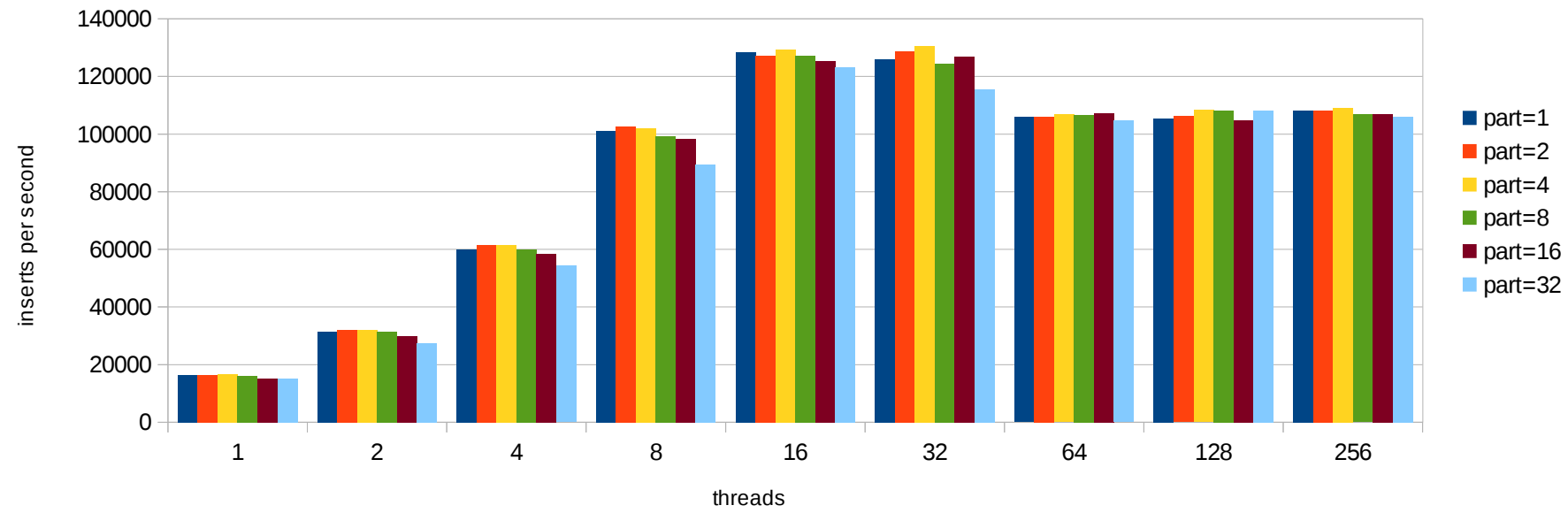


INSERTS in batches of 20, 32 tables, sysbench-mariadb, Intel (32 hw threads)

system throughput (qps)							throughput per used core					
threads	part=1	part=2	part=4	part=8	part=16	part=32	part=1	part=2	part=4	part=8	part=16	part=32
1	16477	16350	16801	16162	15225	15023	16477	16350	16801	16162	15225	15023
2	31522	31976	32014	31375	29928	27538	15761	15988	16007	15688	14964	13769
4	59904	61380	61401	59909	58360	54288	14976	15345	15350	14977	14590	13572
8	101128	102758	102079	99101	98239	89350	12641	12845	12760	12388	12280	11169
16	128522	127191	129275	127278	125299	123209	8033	7949	8080	7955	7831	7701
32	126006	128797	130590	124457	126792	115456	3938	4025	4081	3889	3962	3608
64	105805	105912	106731	106565	107335	104618	3306	3310	3335	3330	3354	3269
128	105387	106211	108306	108126	104833	108058	3293	3319	3385	3379	3276	3377
256	108146	108179	109047	106765	106928	106098	3380	3381	3408	3336	3342	3316
AVG							9089	9168	9245	9012	8758	8311
vs. 1							0,0%	0,9%	1,7%	-0,9%	-3,8%	-9,4%

Impact of buffer pool partitions

workload: inserts in batches of 20 (into 32 tables)

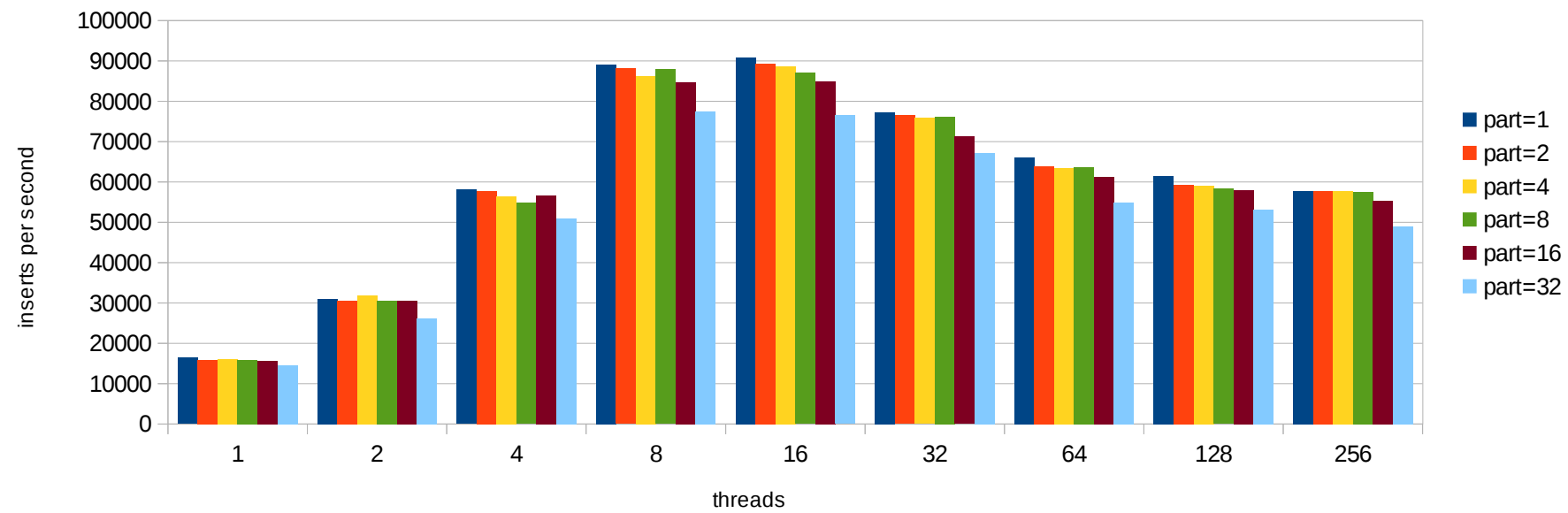


INSERTS in batches of 20, 1 table, sysbench-mariadb, Intel (32 hw threads)

system throughput (qps)							throughput per used core						
threads	part=1	part=2	part=4	part=8	part=16	part=32	part=1	part=2	part=4	part=8	part=16	part=32	
1	16407	15941	16039	15989	15594	14562	16407	15941	16039	15989	15594	14562	
2	30949	30580	31858	30599	30511	26196	15475	15290	15929	15300	15256	13098	
4	58076	57785	56379	54761	56633	50991	14519	14446	14095	13690	14158	12748	
8	89057	88143	86225	87902	84697	77472	11132	11018	10778	10988	10587	9684	
16	90866	89258	88589	87015	84854	76496	5679	5579	5537	5438	5303	4781	
32	77196	76451	75857	76157	71245	67223	2412	2389	2371	2380	2226	2101	
64	66050	63925	63512	63734	61247	55003	2064	1998	1985	1992	1914	1719	
128	61445	59294	59080	58322	57867	53224	1920	1853	1846	1823	1808	1663	
256	57730	57809	57781	57492	55356	49065	1804	1807	1806	1797	1730	1533	
							AVG	7935	7813	7821	7711	7620	6877
							vs. 1	0,0%	-1,6%	-1,5%	-2,9%	-4,1%	-15,4%

Impact of buffer pool partitions

workload: inserts in batches of 20 (into a single table)



OLTP, 32 tables, uniform rng, sysbench-mariadb, Intel (32 hw threads)

system throughput (qps)

OLTP read-only						
threads	part=1	part=2	part=4	part=8	part=16	part=32
1	11060	11010	11160	10997	11192	11237
2	20624	20376	20429	20565	20898	20633
4	36967	37002	38051	38144	37242	37732
8	69009	68343	69283	68845	70446	70357
16	122370	126643	124293	124859	122278	122420
32	180514	175924	174004	179595	177955	179313
64	170819	168977	170145	170054	169274	169444
128	166011	164518	165875	165463	166155	165968
256	165964	165364	166240	165850	166746	164000

throughput per used core

	part=1	part=2	part=4	part=8	part=16	part=32
11060	11010	11160	10997	11192	11237	
10312	10188	10215	10283	10449	10317	
9242	9251	9513	9536	9311	9433	
8626	8543	8660	8606	8806	8795	
7648	7915	7768	7804	7642	7651	
5641	5498	5438	5612	5561	5604	
5338	5281	5317	5314	5290	5295	
5188	5141	5184	5171	5192	5187	
5186	5168	5195	5183	5211	5125	
AVG	7582	7555	7605	7612	7628	7627
vs. 1	0,0%	-0,4%	0,3%	0,4%	0,6%	0,6%

OLTP read/write (10% writes)

threads	part=1	part=2	part=4	part=8	part=16	part=32
1	11665	10346	10790	10275	10433	9847
2	21209	21463	19864	21147	21539	19057
4	38835	39225	38989	40035	40451	39132
8	74024	73754	75291	74657	72767	72045
16	139282	140185	138855	138635	135336	123996
32	186381	186960	188659	189466	187658	181285
64	195493	192810	194910	195544	193801	191157
128	191435	189578	191491	191736	191434	191698
256	192765	192328	192674	192551	194216	193233

	part=1	part=2	part=4	part=8	part=16	part=32
11665	10346	10790	10275	10433	9847	
10605	10732	9932	10574	10770	9529	
9709	9806	9747	10009	10113	9783	
9253	9219	9411	9332	9096	9006	
8705	8762	8678	8665	8459	7750	
5824	5843	5896	5921	5864	5665	
6109	6025	6091	6111	6056	5974	
5982	5924	5984	5992	5982	5991	
6024	6010	6021	6017	6069	6039	
AVG	8208	8074	8061	8099	8094	7731
vs. 1	0,0%	-1,7%	-1,8%	-1,3%	-1,4%	-6,2%

OLTP read/write (22% writes)

threads	part=1	part=2	part=4	part=8	part=16	part=32
1	9407	8885	8806	9963	10306	9265
2	18009	18059	19516	19286	19502	18431
4	34643	35530	36254	34469	36779	33935
8	66842	66659	67453	67425	66920	62776
16	123497	124243	123133	123127	119132	111346
32	165114	165265	167309	168606	166041	158296
64	177287	174165	175848	176779	174339	169394
128	172670	171983	172794	172386	173897	171269
256	162752	173773	173947	173698	174783	172384

	part=1	part=2	part=4	part=8	part=16	part=32
9407	8885	8806	9963	10306	9265	
9005	9030	9758	9643	9751	9216	
8661	8883	9064	8617	9195	8484	
8355	8332	8432	8428	8365	7847	
7719	7765	7696	7695	7446	6959	
5160	5165	5228	5269	5189	4947	
5540	5443	5495	5524	5448	5294	
5396	5374	5400	5387	5434	5352	
5086	5430	5436	5428	5462	5387	
AVG	7148	7145	7257	7328	7400	6972
vs. 1	0,0%	-0,0%	1,5%	2,5%	3,4%	-2,5%

OLTP read/write (80% writes)

threads	part=1	part=2	part=4	part=8	part=16	part=32
1	11111	11106	11116	11077	10930	10781
2	23670	21534	21471	22448	21342	20524
4	44351	44119	42102	42988	42876	40976
8	83621	81827	83506	82792	81363	73059
16	116175	115594	109862	114948	107488	97447
32	111105	114759	115047	106272	94146	97059
64	114421	101903	112614	109621	102060	91728
128	99194	106830	108246	109164	100893	102931
256	95068	101655	110204	99023	99378	95976

	part=1	part=2	part=4	part=8	part=16	part=32
11111	11106	11116	11077	10930	10781	
11835	10767	10736	11224	10671	10262	
11088	11030	10526	10747	10719	10244	
10453	10228	10438	10349	10170	9132	
7261	7225	6866	7184	6718	6090	
3472	3586	3595	3321	2942	3033	
3576	3184	3519	3426	3189	2867	
3100	3338	3383	3411	3153	3217	
2971	3177	3444	3094	3106	2999	
AVG	7207	7071	7069	7093	6844	6514
vs. 1	0,0%	-1,9%	-2,0%	-1,6%	-5,3%	-10,6%

OLTP, 32 tables, pareto rng (hotspot), sysbench-mariadb, Intel (32 hw threads)

system throughput (qps)

OLTP read-only						
threads	part=1	part=2	part=4	part=8	part=16	part=32
1	10714	11200	11431	11285	11165	11315
2	20715	20642	20826	21153	20925	21097
4	37800	37856	38378	38547	37689	38144
8	69919	68337	69222	70337	69512	67205
16	123744	123897	125323	121581	123080	119824
32	179735	182463	184270	179795	178370	175627
64	170565	170204	170018	169156	169325	171398
128	166329	166826	166933	166154	167413	166999
256	170115	171048	171727	171156	173906	176179

throughput per used core

	part=1	part=2	part=4	part=8	part=16	part=32
10714	11200	11431	11285	11165	11315	
10358	10321	10413	10577	10463	10549	
9450	9464	9595	9637	9422	9536	
8740	8542	8653	8792	8689	8401	
7734	7744	7833	7599	7693	7489	
5617	5702	5758	5619	5574	5488	
5330	5319	5313	5286	5291	5356	
5198	5213	5217	5192	5232	5219	
5316	5345	5366	5349	5435	5506	
AVG	7606	7650	7731	7704	7663	7651
vs. 1	0,0%	0,6%	1,6%	1,3%	0,7%	0,6%

OLTP read/write (10% writes)

threads	part=1	part=2	part=4	part=8	part=16	part=32
1	10703	11692	10159	10945	10152	9219
2	20566	19848	21095	21525	21795	19329
4	39623	38164	40158	39785	39371	39006
8	75371	73601	75504	76374	74412	69431
16	139715	139471	140677	138877	134310	125945
32	186608	186650	189410	186497	183614	170667
64	194800	194177	194578	193746	192327	189457
128	190461	191210	191598	189923	191139	190733
256	192573	191165	191293	191780	195009	196469

	part=1	part=2	part=4	part=8	part=16	part=32
10703	11692	10159	10945	10152	9219	
10283	9924	10548	10763	10898	9665	
9906	9541	10040	9946	9843	9752	
9421	9200	9438	9547	9302	8679	
8732	8717	8792	8680	8394	7872	
5832	5833	5919	5828	5738	5333	
6088	6068	6081	6055	6010	5921	
5952	5975	5987	5935	5973	5960	
6018	5974	5978	5993	6094	6140	
AVG	8104	8103	8105	8188	8045	7616
vs. 1	0,0%	-0,0%	0,0%	1,0%	-0,7%	-6,4%

OLTP read/write (22% writes)

threads	part=1	part=2	part=4	part=8	part=16	part=32
1	9378	9197	9693	9361	9062	9486
2	18084	19344	18733	18382	19157	17460
4	36078	35965	36703	36981	35181	32723
8	67756	66001	67753	66078	64391	60415
16	124193	123503	124238	120943	115761	103144
32	164096	164393	165460	164326	156473	136934
64	172952	174098	173997	172302	171070	159175
128	168455	167402	168252	167020	167503	166996
256	156964	156480	156339	155057	157815	158979

	part=1	part=2	part=4	part=8	part=16	part=32
9378	9197	9693	9361	9062	9486	
9042	9672	9367	9191	9579	8730	
9020	8991	9176	9245	8795	8181	
8470	8250	8469	8260	8049	7552	
7762	7719	7765	7559	7235	6447	
5128	5137	5171	5135	4890	4279	
5405	5441	5437	5384	5346	4974	
5264	5231	5258	5219	5234	5219	
4905	4890	4886	4846	4932	4968	
AVG	7153	7170	7247	7133	7014	6648
vs. 1	0,0%	0,2%	1,3%	-0,3%	-2,0%	-7,6%

OLTP read/write (80% writes)

threads	part=1	part=2	part=4	part=8	part=16	part=32
1	11688	11298	11487	12071	11817	11222
2	22555	22608	23438	21914	20401	20235
4	41112	41580	41963	41081	39217	35155
8	75113	75009	75752	73835	71354	59491
16	118316	117727	116588	115971	110975	96283
32	114174	119075	115888	114044	108349	101739
64	109177	112816	113766	110721	105569	102084
128	108657	117229	116346	115690	114659	103819
256	112630	117357	123742	117503	113332	116693

	part=1	part=2	part=4	part=8	part=16	part=32
11688	11298	11487	12071	11817	11222	
11278	11304	11719	10957	10201	10118	
10278	10395	10491	10270	9804	8789	
9389	9376	9469	9229	8919	7436	
7395	7358	7287	7248	6936	6018	
3568	3721	3622	3564	3386	3179	
3412	3526	3555	3460	3299	3190	
3396	3663	3636	3615	3583	3244	
3520	3667	3867	3672	3542	3647	
AVG	7102	7145	7237	7121	6832	6316
vs. 1	0,0%	0,6%	1,9%	0,3%	-4,0%	-12,5%

sysbench-1.0 OLTP @ ARM (46 cores)

system throughput (qps)

OLTP read-only							
threads	part=1	part=2	part=4	part=8	part=16	part=32	part=64
1	8634	8635	8649	8463	8486	8322	8268
6	49942	48467	48130	48306	47416	47868	47025
12	97576	96364	97859	96802	96335	96711	97415
23	182017	184325	183743	183373	182990	182325	184134
46	345051	343545	344978	342406	342501	341282	345983
92	323657	321415	325901	323747	322116	319796	324410
184	312149	308725	309394	307270	309604	306223	309411
368	315763	312082	312653	312011	312067	310432	312313

OLTP read/write							
threads	part=1	part=2	part=4	part=8	part=16	part=32	part=64
1	6352	6474	6693	6503	6614	6381	6491
6	44756	44894	45891	44182	43965	44410	43542
12	82664	83311	84714	84710	84867	85675	84844
23	153120	151204	148641	146331	150145	154945	157360
46	247418	237558	232498	232361	243077	243867	247085
92	246635	243181	241380	238318	245415	244365	244839
184	224296	222388	223254	221930	223149	221136	221197
368	160287	161023	162011	159237	163133	160177	161150

OLTP write-only							
threads	part=1	part=2	part=4	part=8	part=16	part=32	part=64
1	7542	8174	7693	7880	9501	9484	9705
6	48457	47784	47380	46608	48380	48962	49511
12	86391	85102	81027	78543	80861	84235	86488
23	161550	147779	139311	135012	139625	141053	149204
46	228008	207822	198531	190525	184017	193764	195141
92	204325	197942	191985	189549	187987	190996	182359
184	188175	183589	180412	179227	174060	179424	180150
368	157250	156391	154052	152484	153212	151714	150515

throughput per used core

part=1	part=2	part=4	part=8	part=16	part=32	part=64
8634	8635	8649	8463	8486	8322	8268
8324	8078	8022	8051	7903	7978	7838
8131	8030	8155	8067	8028	8059	8118
7914	8014	7989	7973	7956	7927	8006
7501	7468	7500	7444	7446	7419	7521
7036	6987	7085	7038	7003	6952	7052
6786	6711	6726	6680	6731	6657	6726
6864	6784	6797	6783	6784	6749	6789

AVG	7649	7589	7615	7562	7542	7508	7540
vs. 1	0,0%	-0,8%	-0,4%	-1,1%	-1,4%	-1,9%	-1,4%

part=1	part=2	part=4	part=8	part=16	part=32	part=64
6352	6474	6693	6503	6614	6381	6491
7459	7482	7649	7364	7328	7402	7257
6889	6943	7060	7059	7072	7140	7070
6657	6574	6463	6362	6528	6737	6842
5379	5164	5054	5051	5284	5301	5371
5362	5287	5247	5181	5335	5312	5323
4876	4835	4853	4825	4851	4807	4809
3485	3501	3522	3462	3546	3482	3503

AVG	5807	5782	5818	5726	5820	5820	5833
vs. 1	0,0%	-0,4%	0,2%	-1,4%	0,2%	0,2%	0,4%

part=1	part=2	part=4	part=8	part=16	part=32	part=64
7542	8174	7693	7880	9501	9484	9705
8076	7964	7897	7768	8063	8160	8252
7199	7092	6752	6545	6738	7020	7207
7024	6425	6057	5870	6071	6133	6487
4957	4518	4316	4142	4000	4212	4242
4442	4303	4174	4121	4087	4152	3964
4091	3991	3922	3896	3784	3901	3916
3418	3400	3349	3315	3331	3298	3272

AVG	5844	5733	5520	5442	5697	5795	5881
vs. 1	0,0%	-1,9%	-5,9%	-7,4%	-2,6%	-0,8%	0,6%