Memcached two-stage hash Memcached <key,value> key memcached key memcached item 3 memcached A, B, C 1, 2, 3 3 Client 1 "barbaz" key "foo" Client 1 A, B, C key "foo" memcached B memcached B Client 1 connect key "foo" "barbaz" Client 2 Client 1 memcached A, B, C key "foo" memcached B Client 2 memcached B "barbaz" memcached perl Storable, php serialize, java hibernate, JSON memcached memcached C10K problem A Story of Caching memcached memcached memcached Memcached memcached memcached memcached implode memcached memcached **CPU** memcached FAQ memcached MySQL query local cache cache memcached MySQL query cache

memcached

memcache	ed					1ySQL			query	
cache		SQL			SQL					
Memcached cache MyS	SQL		MySQL	query	1	cache				query
*	MySC	ΩL quer	y cache			flush		mei	mcache	d item
				MyS	QL	query o	ache			
* CP	U MyS	QL que	ry cache			sca	lability	issues		CPU
query ca	iche		global	lock	ı					
* MySQ	L query cached							SQL		
		user	object				men	ncached		query
cache SQL							query	cache		
		query ca								
* query cach	е		My:	SQL						
						me	emcache	ed		
		memcache	ed							
memcached		local cac	ho I	PHP	APC	mman				
memcacheu		iocai cac	ne i	РПР	APC	mmap				
local	cache	((query cach	e)		loca	I cache			
10001	Saorio		quoi y ouoii	<i>-</i>	local		che	m	nemcacl	hed
query cache										
. ,										
* local cache			highl	y comn	non		loca	I cache		
						local	cached			
* local cache		grou	ıp invalidat				emcache	ed		
key				loca	I cac	he ,				
cache										
* local cache										
memcached	cache									
Memcached	cach	ne	LRU			+				
memcached					V	/hich is	forever	, or son	ne time	in the
future	memcache	ed			slabs	6				

slabs memcached Memcached memcached memcached down memcached :) memcached key hashing chaos consistent hashing reshing down down stale data memcached item memcached Memcached memcached warm

Stever	ı	Grimm		ı					
http://	lists.danga.com/	n/pipermail/m	emcached/	2007-Ju	uly/0048	302.htm	ıl		
	memcache	d item							
	memcache	d down							
				"	"		memo	ached	
					FAQ				
	Memca	ached							
						45		_	
						15	Ĺ	0	
*	MogileFS	CouchDB			it	em	item		dump
	MogileFS		item	1					MogileFS
i	tem me	mcached				M	ogileFS+N	/lemcache	ed
*	MySQL	. MySQL I	nnoDB						
	VARCHAR	ko	.,	(1 bi+		mer	ncached	key	
	MySQL	ke key		64-bit				IVI	ySQL
ke	v	КСУ	key						
	,								
		memcache	ed	memo	ached				
	"hot	" item r	memcached	l LRU					
			http://dor	mando	livoiou	rnal cor	m/405503	R html	
			Tittp://doi	manao	vcjou	mai.coi	11/ 4 / 33 / 3	J.11(1111	
memc	ached								
		memcached							
I	memcached								
		memcached							
								1	
					memca	iched	unix	domain s	ocket
memc	ached								
morno		ads rule	Steven G	rimm	Faceb	ook		memcach	ned 1.2
					ncached			CPU	
CPU		m	nemcached						

	memcached							
multi gets								
		memca	ched					
memcach	ned							
					me	emcache	ed	
memcached	ke	V						
key	250	y		250	memcache	h		
КСУ	230	"key	"	230	key	+	key	
2	50	кеу				т	кеу	
2	.50				key			
m a maaah a d	itom							
memcached	item	10						
	3	memc memc						
		memcach	ed i	tem				obscure
memcached			:em					
1MB		1MB				k€	ey	
it	tem	1M	byte					
	Memcache	d				S	labs	
	9	labs chunks					-1-1-	
	3	iabo oriarina	·		slabs		slab	
chunks	slab	chunk		cl	slabs		siab	
chunks				Cl			SIAD	
chunks				Cl			SIAD	
chunks	slab	chunk			nunk	chunk	SIAD	
	slab 400B	chunk 1MB		cl 1.20	nunk	chunk	SIAD	
chunks slab1 – 400B s	slab 400B	chunk 1MB			nunk	chunk	SIAD	
slab1 – 400B s	slab 400B lab2 – 480B	chunk 1MB slab3 – 576B			nunk	chunk	SIAD	
slab1 – 400B s	slab 400B llab2 – 480B	chunk 1MB slab3 – 576B			nunk	chunk	SIAD	
slab1 – 400B s	slab 400B llab2 – 480B	chunk 1MB slab3 – 576B			nunk	chunk	SIAD	
slab1 – 400B s	slab 400B llab2 – 480B	chunk 1MB slab3 – 576B			nunk	chunk	SIAD	
slab1 – 400B s	slab 400B llab2 – 480B	chunk 1MB slab3 – 576B slab slab			nunk	chunk	SIAD	
slab1 – 400B s	slab 400B slab2 – 480B ached	chunk 1MB slab3 – 576B slab slab			nunk slab	chunk	SIAD	

	1MB			slabs.c:POWER_BLOCK		
memcached		malloc/free			MogileFS	
memcached					memcach	ed
Memcache			key			
		memcache	d			