

TYPO3.Flow - Bug # 8918

Status:	Resolved	Priority:	Should have
Author:	Christian Kuhn	Category:	Cache
Created:	2010-07-17	Assigned To:	Karsten Dambekalns
Updated:	2010-10-20	Due date:	
PHP Version:			
Has patch:			
Complexity:			
Affected Flow version:			
Subject:	memcached backend: Remove tagIndex		
Description			
Problem:			
The memcached backend implementation currently stores this key-value "structure" to map our identifier-data-keys relation:			
<ul style="list-style-type: none">- identifier -> data- identifier -> keys- key -> identifiers- tagIndex -> All known tags			
The tagIndex doesn't have any benefit at all, it just leads to more set() and get() calls.			
Solution:			
Completely remove tagIndex to save some operations which speeds up this backend, unit tests still show green bar.			
Numbers:			
Performance tests show that the backend speeds up between ~10 to 100% by removing the tagIndex. As an example, attached images show a test which set()'s a raising number of cache entries with a single attached tag to the backend. More numbers can be generated with ext:enetcacheanalytics (forge) in v4.			
Notes:			
Memcache is a simple key-value store and not designed to store structures of multiple related entries. Our implementation is a misuse, which leads to corrupt caches if memcache evicts entries from cache (because it needs space for new elements), or if single servers fail in a multi server environment.			

Associated revisions

Revision 924bf567 - 2010-08-23 16:08 - Karsten Dambekalns

[+BUGFIX] FLOW3 (Cache): Removed tagIndex from memcache and APC backends, fixes #8918. Thanks to Christian Kuhn.

Change-Id: I6ee52676aa5db78bfa5410b296c94e99d5c41c1a

History

#1 - 2010-08-12 18:00 - Karsten Dambekalns

- Status changed from New to Accepted
- Assigned To set to Karsten Dambekalns
- Start date deleted (2010-07-17)

#2 - 2010-08-16 11:22 - Karsten Dambekalns

- Target version set to 1.0 alpha 11
- Start date set to 2010-08-16

#3 - 2010-08-16 11:35 - Karsten Dambekalns

- Status changed from *Accepted* to *Resolved*

- % Done changed from 0 to 100

Applied in changeset r4974.

Files

cacheBackendMemcachedBackend_removeTagIndex_after.png	23.4 kB	2010-07-17	Christian Kuhn
cacheBackendMemcachedBackend_removeTagIndex_before.png	23 kB	2010-07-17	Christian Kuhn
cacheBackendMemcachedBackend_removeTagIndex_flow3.diff	2.6 kB	2010-07-17	Christian Kuhn
cacheBackendMemcachedBackend_removeTagIndex_v4.diff	2.6 kB	2010-07-17	Christian Kuhn