TYPO3.Flow - Bug # 49189

Status:	Resolved	**Priority:**	Must have
Author:	Robert Lemke	**Category:**	Session
Created:	2013-06-17	**Assigned To:**	Robert Lemke
Updated:	2013-06-20	**Due date:**	
PHP Version:	5.4		
Has patch:	No		
Complexity:	medium		
Affected Flow version:	Git master		
Subject:	Session storage has poor performance for hundreds of sessions		

Description

If an application contains hundreds of simultaneous sessions, the garbage collection mechanism performs poorly which can eventually result in an unresponsive application.

The root cause for this is the way session entries are retrieved from the cache (in order to check if they need to be removed): in its current implementation, entries with meta information and those acting as storage entries reside in the same cache. Therefore, in order to iterate over the meta entries only, Flow needs to fetch cache entries by tag. Most cache backends will not be able to deliver cache entries by tags with a reasonable speed, thus the complexity for this operation is quite high.

The solution would be to split up caches into a meta cache and a storage cache. Given this, the session garbage collector would be able to iterate over all entries of the meta cache without having to use the find-by-tag mechanism.

Related issues:

blocked by TYPO3.Flow - Feature # 49185: Iterator support for Cache Frontends...	**Resolved**	**2013-06-17**

Associated revisions

Revision d84108f8 - 2013-06-18 14:01 - Robert Lemke

[BUGFIX] Session storage has poor performance for hundreds of sessions

Fixes an issue with the storage backend for sessions which resulted in a bad overall performance when hundreds of sessions were active simultaneously. The improved implementation is now based on two separate cache storages and a new garbage collector which allows for more fine grained tuning.

If you previously used a different than the default cache backend for sessions, you will need to adjust your configuration because this implementation is based on two distinct cache backend configurations (see updated Caches.yaml).

The option name for setting the garbage collection probability has changed: the settings now come with a dedicated section for garbage collection which contains the probability and, added by this patch, the maximum number of old sessions which may be removed by the garbage collector during one invocation.

You need to flush caches with --force after applying this change set.

Change-Id: I08578b39bab06ffb406a95f289eeb170542f92cf

Fixes: #49189

Resolves: #49190

Releases: master, 2.0

Revision 54d08ed5 - 2013-06-19 16:06 - Robert Lemke

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a bad overall performance when hundreds of sessions were active
simultaneously. The improved implementation is now based on two separate
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Change-Id: I08578b39bab06ffb406a95f289eeb170542f92cf

Fixes: #49189

Resolves: #49190

Releases: master, 2.0

History

#1 - 2013-06-17 13:07 - Gerrit Code Review

- Status changed from Accepted to Under Review

Patch set 1 for branch **master** has been pushed to the review server.

It is available at https://review.typo3.org/21476

#2 - 2013-06-17 14:30 - Gerrit Code Review

Patch set 2 for branch **master** has been pushed to the review server.

It is available at https://review.typo3.org/21476

#3 - 2013-06-17 15:41 - Gerrit Code Review

Patch set 3 for branch **master** has been pushed to the review server.

It is available at https://review.typo3.org/21476

#4 - 2013-06-17 23:51 - Gerrit Code Review

Patch set 4 for branch **master** has been pushed to the review server.
It is available at https://review.typo3.org/21476

#5 - 2013-06-18 14:02 - Gerrit Code Review

Patch set 5 for branch **master** has been pushed to the review server.
It is available at https://review.typo3.org/21476

#6 - 2013-06-19 15:37 - Anonymous
- Status changed from Under Review to Resolved
- % Done changed from 0 to 100

Applied in changeset commit:d84108f8e6a52c946f8465793a41ca4e4fe26081.

#7 - 2013-06-19 16:08 - Gerrit Code Review
- Status changed from Resolved to Under Review

Patch set 1 for branch **2.0** has been pushed to the review server.
It is available at https://review.typo3.org/21507

#8 - 2013-06-20 09:37 - Anonymous
- Status changed from Under Review to Resolved

Applied in changeset commit:54d08ed5606ce4d87c63f0d571eeb4837679322b.