

Infrastructure - Story #1952

SerialVersion in SystemMetadata needs to be incremented with each Update

2011-10-28 23:08 - Robert Waltz

Status:	Closed	Start date:	2011-11-01
Priority:	Normal	Due date:	
Assignee:	Robert Waltz	% Done:	100%
Category:	Documentation	Estimated time:	0.00 hour
Target version:	Sprint-2011.46-Block.6		
Story Points:			
Description			
The serialVersion in SystemMetadata allows for consistency between updates of systemMetadata			
systemMetadata can only be updated on the CN			
systemMetadata is managed by Hazelcast			
Every operation that manipulated SystemMetadata on the CN will follow the pattern:			
lock(); get(); increment(); put(); unlock();			
if (hzSystemMetadata.tryLock(pid, 500L, TimeUnit.MILLISECONDS)) {			
SystemMetadata systemMetadata = hzSystemMetadata.get(pid);			
do something here			
systemMetadata.setSerialVersion			
(systemMetadata.getSerialVersion().add(BigInteger.ONE));			
hzSystemMetadata.put (systemMetadata);			
hzSystemMetadata.unlock (pid);			
}			
and of course you'll want the above in a try catch block too, so that if an exception is raised, a lock will still be released			
Locking will be performed on the hzSystemMetadata HazelcastMap			
Get will be performed against the hzSystemMetadata HazelcastMap			
increment is an operation performed on the SystemMetadata.serialVersion.			
Put will be performed against the hzSystemMetadata HazelcastMap			
Unlocking will be performed on the Hazelcast Lock structure			
Subtasks:			
Task # 1979: Update synchronization to use the locking and serialversion algorithm			Closed
Task # 1980: Update replication to use the locking and serialVersion algorithm			Closed
Task # 1981: Update CNReplication implementation to use the locking and serialVersion a...			Closed
Task # 1991: Update CNReplication and CNAuthorization interfaces with serialVersion change			Closed
Task # 1992: Update CNode implementation with serialVersion Additions			Closed
Task # 1993: Update Metacat implementation to support serialVersion additions			Closed
Task # 1994: Update CNReplication proxy classes to support serialVersion additions			Closed
Task # 1995: Update Metacat auth implementation to support serialVersion additions			Closed
Task # 1996: Update CNAuthorization proxy classes to support serialVersion additions			Closed
Task # 1982: Update CNAuthorization implementation to use the locking and serialVersion...			Closed
Related issues:			

History

#1 - 2011-11-07 18:09 - Dave Vieglaiss

- Target version changed from Sprint-2011.44-Block.6 to Sprint-2011.45-Block.6
- Position set to 1

#2 - 2011-11-15 03:34 - Dave Vieglaiss

- Target version changed from Sprint-2011.45-Block.6 to Sprint-2011.46-Block.6
- Position deleted (9)
- Position set to 1

#3 - 2011-11-15 17:52 - Robert Waltz

- Status changed from New to Closed