

## Infrastructure - Bug #2583

### Metacat CN-CN replication permOrder issue with EML-defined access rules

2012-04-05 22:32 - Ben Leinfelder

<b>Status:</b>	Closed	<b>Start date:</b>	
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Ben Leinfelder	<b>% Done:</b>	100%
<b>Category:</b>	Metacat	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	Sprint-2012.13-Block.2.3	<b>Story Points:</b>	
<b>Milestone:</b>	CCI-1.0.0		
<b>Product Version:</b>	*		
<b>Description</b>			
<b>Related issues:</b>			
Related to Infrastructure - Task #2613: Convert existing deny/denyFirst rules...		<b>Closed</b>	<b>2012-04-17</b>

#### History

##### #1 - 2012-04-05 22:54 - Ben Leinfelder

- Category set to Metacat
- Assignee set to Ben Leinfelder

Here's the scenario for sample guid 'knb-lter-sbc.40.2':

- It is an EML 2.1.0 document with embedded access control rules that use the "denyFirst" permOrder are added to a MN instance of Metacat.
- System Metadata for access control does not know about nor care about the permOrder that Metacat uses to record access control.
- CN-unm gets this object from the MN and adds it to its store - the System Metadata is immediately replicated to the other CNs (CN-ucsb and CN-orc) via the shared Hazelcast System Metadata map and then the EML file is replicated to them via Metacat replication.
- Upon EML replication to these other CNs we already have System Metadata (including access control rules with permOrder=allowFirst) recorded.
- The EML is parsed on the replica CNs and the access control rules embedded in it (permOrder=denyFirst) conflict with those that already exist from the prior System Metadata replication (where permOrder=allowFirst because that was what we chose as the default for System Metadata in Metacat).
- This makes Metacat's xml\_access table inconsistent because we end up with a mix of denyFirst and allowFirst for the same guid (in fact this should not even be allowed to be inserted in cases like this, but that's a separate issue).

##### #2 - 2012-04-09 22:45 - Ben Leinfelder

Now we won't write EML-defined access control rules to the DB during:

- D1 API insert/update
- Metacat replication

This should shield us from polluting the AccessPolicy defined in SystemMetadata when dealing with EML objects.

We also decided to convert all deny/denyFirst access rules to use the allow/allowFirst approach assuming there is no loss of the semantics of the access control block.

##### #3 - 2012-04-17 22:34 - Ben Leinfelder

- *Status changed from New to Closed*

This "solved" by ignoring EML access control rules in the way described.