

## Infrastructure - Task #1183

Story # 1388 (Closed): implement MN-MN replication manager in CN stack

### Implement mechanism in CN that will execute a replication operation on a MN

2011-01-03 20:23 - Dave Vieglais

<b>Status:</b>	Closed	<b>Start date:</b>	2011-01-03
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Chris Jones	<b>% Done:</b>	100%
<b>Category:</b>	d1_replication	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	Sprint-2011.41-Block.5	<b>Story Points:</b>	
<b>Milestone:</b>	CCI-0.7.0		
<b>Product Version:</b>	*		
<b>Description</b>			
Described in UC09 ( <a href="http://mule1.dataone.org/ArchitectureDocs-current/design/UseCases/09_uc.html">http://mule1.dataone.org/ArchitectureDocs-current/design/UseCases/09_uc.html</a> ), this task is to implement a mechanism on the CN that given a PID, a source MN PID and a target MN PID, will invoke replicate() on the target MN and update the replica status in the system metadata for the object.			

#### History

##### #1 - 2011-01-20 04:35 - Rob Nahf

code for issuing a replicate command (assembling the mime-multipart, doing the POST, etc. is in the DataReplicateTest.java class in d1\_integration. It should probably move to d1\_libclient\_java, but hasn't been done yet. It does not do all of the tasks needed for this story, but is a start.

##### #2 - 2011-03-01 18:40 - Robert Waltz

- Category set to d1\_replication
- Assignee set to Rob Nahf
- Milestone set to CCI-0.5

##### #3 - 2011-03-16 17:49 - Robert Waltz

- Assignee changed from Rob Nahf to Robert Waltz

##### #4 - 2011-03-16 17:50 - Robert Waltz

- Parent task changed from #1132 to #1388

##### #5 - 2011-03-25 16:54 - Robert Waltz

- Milestone deleted (CCI-0.5)

##### #6 - 2011-08-16 17:17 - Robert Waltz

- Assignee changed from Robert Waltz to Chris Jones
- Milestone set to CCI-0.7.0

##### #7 - 2011-08-25 14:06 - Chris Jones

- Status changed from New to In Progress

Created the d1\_replication project within the cn project that provides a ReplicationService class. This class will coordinate replication by adding tasks to a distributed replication queue and processing those tasks, calling replicate() on the target MN. The class is stubbed out, functionality pending.

##### #8 - 2011-09-08 16:08 - Chris Jones

- Status changed from In Progress to Closed

The ReplicationService class creates ReplicationTask objects and queues them into a Hazelcast queue. It then handles the items in the queue, sending them to a cluster-wide ExecutorService. The executor service calls the ReplicationTask.call() method, which initiates replication on the MN.