

## Arvados - Bug #13998

### [keepstore] Cached block fetch for federation

08/08/2018 04:58 PM - Peter Amstutz

<b>Status:</b>	New	<b>Start date:</b>	
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assigned To:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	To Be Groomed		
<b>Description</b>			

#### History

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##### #1 - 08/08/2018 04:58 PM - Peter Amstutz

- Status changed from New to In Progress

##### #2 - 08/08/2018 05:02 PM - Peter Amstutz

One approach

#### Fetching block, with caching:

1. client wishes to read a file
2. client has provides block locator with "remote" signature (see [#13993](#))
3. client sends request to keepstore server in regular rendezvous hashing order
4. keepstore service looks up (cluster, block) in table mapping (cluster, block, signature)
  1. if found, check if the remote signature is cached
  2. if remote signature isn't cached, send HEAD request to cccc to validate signature
  3. if the signature is valid, try to fetch the block from local volume
  4. if the signature is not valid, fail (because HEAD request must have failed)
5. block is not found, keepstore contacts keepproxy on remote cluster and requests block
6. block is spooled into local volume storage and mapping is added for (cluster, block, signature)
7. keepproxy on remote cluster returns block content to keepstore
8. keepstore returns block content to client, also return valid local signature in header

##### #3 - 08/08/2018 07:35 PM - Peter Amstutz

- Status changed from In Progress to New