

Testing with JUnit MS4

1. Class BasicTesting

Method: void test()

Description: Additional: **Test load balancing.**

Goal: proof of correct functionality of MS2, MS3 and load balancing, performance measurement (latency)

Process:

- Initialize ECS Server
- Initialize 1st KV Server
- Start 1st Client
- Put one element (Key: 1 Value:value) on to the 1st KV Server
 - o Time of execution: 2006 Milliseconds.
- Get this element successfully
 - o Time of execution: 2003 Milliseconds.
 - Initialize 2nd KV Server
- Initialize 3rd KV Server
- Wait for hand-off
- Try to get the 1st element from server 2
 - o Time of execution: 2001 Milliseconds.
- Try to get the 1st element from server 3
 - o Time of execution: 2001 Milliseconds.
- Update element "1" on server 2 (responsible) with "value_updated" and get put_update
 - o Time of execution: 2001 Milliseconds.
- Read updated element "1" from server 1 and get "value_updated"
 - o Time of execution: 2001 Milliseconds.

2. Class AdvancedTesting

Method: void test()

Description: Load test using 10 clients and 5 kv servers. Additional: keyrange_read

- Start ECS
- Start 5 KV servers consequently
- Start 10 clients and execute put requests
 - o put_success or server_not_responsible as expected
- Keyrange_read command
- Every range has 3 read servers and the ring is "closed"

address	port	to	from
127.0.0.1	5090	eab5db97fde2380ca5d7f81efc1d8eb9	258659388b89f29061b744cda841b9cb
127.0.0.1	5092	eab5db97fde2380ca5d7f81efc1d8eb9	258659388b89f29061b744cda841b9cb
127.0.0.1	5093	eab5db97fde2380ca5d7f81efc1d8eb9	258659388b89f29061b744cda841b9cb
127.0.0.1	5092	258659388b89f29061b744cda841b9cc	573c998621b9b5c4a6c13cd8777f20c3
127.0.0.1	5093	258659388b89f29061b744cda841b9cc	573c998621b9b5c4a6c13cd8777f20c3
127.0.0.1	5091	258659388b89f29061b744cda841b9cc	573c998621b9b5c4a6c13cd8777f20c3
127.0.0.1	5093	573c998621b9b5c4a6c13cd8777f20c4	ba8fef87f573aea042747a257a85e954
127.0.0.1	5091	573c998621b9b5c4a6c13cd8777f20c4	ba8fef87f573aea042747a257a85e954
127.0.0.1	5094	573c998621b9b5c4a6c13cd8777f20c4	ba8fef87f573aea042747a257a85e954
127.0.0.1	5091	ba8fef87f573aea042747a257a85e955	c8a802763465220489934b1ffe0434ba
127.0.0.1	5094	ba8fef87f573aea042747a257a85e955	c8a802763465220489934b1ffe0434ba
127.0.0.1	5090	ba8fef87f573aea042747a257a85e955	c8a802763465220489934b1ffe0434ba
127.0.0.1	5094	c8a802763465220489934b1ffe0434bb	eab5db97fde2380ca5d7f81efc1d8eb8
127.0.0.1	5090	c8a802763465220489934b1ffe0434bb	eab5db97fde2380ca5d7f81efc1d8eb8
127.0.0.1	5092	c8a802763465220489934b1ffe0434bb	eab5db97fde2380ca5d7f81efc1d8eb8

