Consistency dont need stinking no

Most ES systems are consistent

| Item Removed |

| Item Added |

| Item Added |

| Created |

| Item Added |

| Item Added |

| Created |

| Item Added |

| Item Added |

| Created |

Item Removed	Item Removed
Item Added	Item Added
Item Added	Item Added
Created	Created

Item Added
Item Added
Created

Quorum Reached

Item Removed
Item Added
Item Added
Created

Item Removed
Item Added
Item Added
Created

Item Removed
Item Added
Item Added
Created

Must have quorum

"Quorum read" assures consistency!

What if …

Server latency is … high?

What if …

Server 1 Netherlands
Server 2 NYC
Server 3 Brazil

What if …

We are on a #$%^ing oil rigs?!

CAP?!

Sometimes giving up seems to be the only thing left to do.

whisper

Motivation++

Item Removed
Item Added
Item Added
Created

Item Added
Item Added
Created

Item Added
Item Added
Created

Item Removed		Item Removed
Item Added		Item Added
Item Added		Item Added
Created		Created

Item Added
Item Added
Created

What if?!

| Item Removed |

| Item Added |

| Item Added |

| Created |

| Deleted |

| Item Added |

| Item Added |

| Created |

| Item Added |

| Item Added |

| Created |

Deleted	Item Removed
Item Removed	Deleted
Item Added	Item Added
Item Added	Item Added
Created	Created

Item Added
Item Added
Created

Can we detect this?

4 Deleted	4 Removed
3 Removed	3 Deleted
2 Item Added	2 Item Added
1 Item Added	1 Item Added
0 Created	0 Created

Keep ORIGINAL too!

4/3 Deleted	4/3 Removed
3/3 Removed	3/3 Deleted
2/2 Item Added	2/2 Item Added
1/1 Item Added	1/1 Item Added
0/0 Created	0/0 Created

4/3 Deleted		4/3 Removed
3/3 Removed		3/3 Deleted
2/2 Item Added		2/2 Item Added
1/1 Item Added		1/1 Item Added
0/0 Created		0/0 Created

$ConflictDetected
Stream 3/4

$ConflictDetected
Stream 3/4

Entire Codebase …
< 1kloc :O

Availability++

Geographic Distribution!!

When should you do this?!