MEMBERSHIP VIEW EXAMPLE:

view [10.118.32.94/gemfire4_host1:14476:locator)<ec><vo>:1024|4] members : [10.118.32.94 (gemfire4_host1:14476:locator)<ec><vo> 10.118.26.119 (gemfire3_host2:7051)<v2>:1025 {lead},

COORDINATOR
* Creates the membership view
* oldest locator or server if locator is not running
* oldest member announces that it is becoming the coordinator to the cluster
• This member is becoming the membership coordinator

VIEW IDENTIFIER
- integer; increase by 1
- unless change in co-ordinator then 5 + (random (0,10))

member list → oldest to the newest

LEAD MEMBER
oldest non locator member
⚖ extra weight in quorum calculation

MEMBERSHIP IDENTIFIERS
10.118.94.5 (gemfire4_host1:14476:locator)<ec> <vo>:1024

INetAddress sometimes can be hostname | Name | Process ID | Member type | ec preferred to be coordinator | vo it was in the initial View | membership port

THE ANATOMY OF MEMBERSHIP

prepares the creation of the new membership view in the View Creator thread

If any member doesn't respond, they are removed from the view

ACKNOWLEDGE

NEW MEMBERSHIP VIEW

CRASHED MEMBER REMOVAL MESSAGE

OTHER MEMBERS

INSTALL VIEW MESSAGE

MEMBERSHIP LISTENERS INVOKED

Cluster ready

MEMBERSHIP WEIGHTS
LOCATORS - 3
SERVERS - 10
LEAD - 15

In partition, the sub-group with 51% + weight of last installed view will survive.

USES OF MEMBERSHIP
Distributed lock service
- to find the elder member
- which recovers granted lock state if the lock grantor crashes
• Function Execution
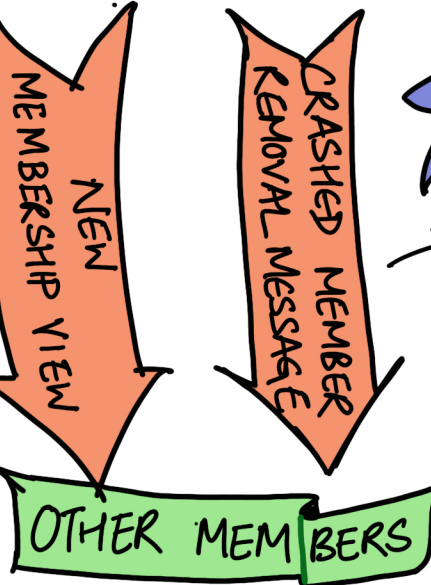 - find out who is in the cluster
• Message Distribution
 - P2P messaging system will give up trying to send message OR stop waiting for replies if member is not in the view anymore
• Region Creation -
 - find out who has the same region
 - forms Distribution Advisor
 - tracks +/- of nodes
 - invokes listeners for these events