

Item 90

**git\_comments:**

**git\_commits:**

1. **summary:** GEODE-1874: Fix formatting  
**message:** GEODE-1874: Fix formatting  
**label:** code-design

**github\_issues:**

**github\_issues\_comments:**

**github\_pulls:**

**github\_pulls\_comments:**

**github\_pulls\_reviews:**

**jira\_issues:**

1. **summary:** setNextNeighbor method allocates a HashSet on every p2p message received  
**description:** Every time a peer receives a message it ends up calling setNextNeighbor in com.gemstone.gemfire.distributed.internal.membership.gms.fd.GMSHealthMonitor. This method always allocates and add all the existing members to it just so it can figure out if all other members are suspected. I was doing performance analysis of a PR get test and this HashSet resulted in a 10% decrease in the put rate. It is not clear why setNextNeighbor is even being called by contactedBy since the actual view did not change. So one possible fix would be to not call setNextNeighbor from contactedBy. But here is an optimization of setNextNeighbor that prevents any work from being done if the sizes indicate that not all other members are suspects. When it does need to check the new code just reads the existing state instead of allocating and adding to a new HashSet: {noformat} diff --git a/geode-core/src/main/java/com/gemstone/gemfire/distributed/internal/membership/gms/fd/GMSHealthMonitor.java b/geode-core/src/main/java/com/gemstone/gemfire/distributed/internal/membership/gms/fd/GMSHealthMonitor.java index 9fdbb64..fcb2826 100644 --- a/geode-core/src/main/java/com/gemstone/gemfire/distributed/internal/membership/gms/fd/GMSHealthMonitor.java +++ b/geode-core/src/main/java/com/gemstone/gemfire/distributed/internal/membership/gms/fd/GMSHealthMonitor.java @@ -818,13 +818,22 @@ public class GMSHealthMonitor implements HealthMonitor, MessageHandler { List<InternalDistributedMember> allMembers = new View.getMembers(); - Set<InternalDistributedMember> checkAllSuspected = new HashSet<>(allMembers); - checkAllSuspected.removeAll(suspectedMemberInView.keySet()); - checkAllSuspected.remove(localAddress); - if (checkAllSuspected.isEmpty() && allMembers.size() > 1) { - logger.info("All other members are suspect at this point"); - nextNeighbor = null; - return; + if (allMembers.size() > 1 && suspectedMemberInView.size() >= allMembers.size()-1) { + boolean nonSuspectFound = false; + for (InternalDistributedMember member: allMembers) { + if (member.equals(localAddress)) { + continue; + } + if (!suspectedMemberInView.containsKey(member)) { + nonSuspectFound = true; + break; + } + } + if (!nonSuspectFound) { + logger.info("All other members are suspect at this point"); + nextNeighbor = null; + return; + } } int index = allMembers.indexOf(nextTo); {noformat}

**jira\_issues\_comments:**

1. Commit edaa462eb41c9380d9fd4eca889ccc269fcd bdf3 in incubator-geode's branch refs/heads/feature/GEODE-1874 from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=edaa462> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
2. Commit fb725edbc3dfa4897b7e7916431c7bf5a2456678 in incubator-geode's branch refs/heads/feature/GEODE-1874 from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?>

- p=incubator-geode.git;h=fb725ed ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
3. Commit 358fca74568a33c40ffbfd741c85b996e9c69769 in incubator-geode's branch refs/heads/feature/GEODE-1874 from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=358fca7> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
  4. Commit 3a88f07aa519c4bb83ca3309987eb987b91a2edd in incubator-geode's branch refs/heads/feature/GEODE-1874 from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=3a88f07> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
  5. Commit c330e5e567eeada8d606aad61a881134335bca40 in incubator-geode's branch refs/heads/feature/GEODE-1874 from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=c330e5e> ] Merge branch 'feature/GEODE-1874' of <https://git-wip-us.apache.org/repos/asf/incubator-geode> into feature/GEODE-1874
  6. Commit c330e5e567eeada8d606aad61a881134335bca40 in incubator-geode's branch refs/heads/feature/GEODE-1874 from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=c330e5e> ] Merge branch 'feature/GEODE-1874' of <https://git-wip-us.apache.org/repos/asf/incubator-geode> into feature/GEODE-1874
  7. Commit b3d3285088c1c3950ba9c8e638e02ca8b852bd01 in incubator-geode's branch refs/heads/develop from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=b3d3285> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
  8. Commit 5b0c56504080f19064e677d79aecf880cd80d091 in incubator-geode's branch refs/heads/develop from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=5b0c565> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
  9. Commit 593c7025f929819fde2e12ca05d24c6abe29b3a4 in incubator-geode's branch refs/heads/develop from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=593c702> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
  10. Commit b0c6f05b22a2cfda4005b1812285c77ad24d7c44 in incubator-geode's branch refs/heads/develop from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=b0c6f05> ] GEODE-1874: Changed setNextNeighbor to not create HashMap for every p2p invocation
  11. Commit 1661504f2944870d59a8c545bba80dfc19a58b94 in incubator-geode's branch refs/heads/develop from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=1661504> ] GEODE-1874: Checkin after code formatting refactor
  12. Commit 15450f5c3251b00db845867db804921223bf4ed6 in incubator-geode's branch refs/heads/develop from [~ukohlmeyer] [ <https://git-wip-us.apache.org/repos/asf?p=incubator-geode.git;h=15450f5> ] GEODE-1874: Fix formatting