

git_comments:

1. 2. Create cache & receiver in vm2
2. 6. Start sender in vm4
3. **comment:** TODO: add a test without redundancy for primary switch
label: test
4. 1. Create locators
5. 3. Create cache & sender in vm4
6. 4. Create Region in vm4 (sender)
7. 5. Create region in vm2 (receiver)

git_commits:

1. **summary:** GEODE-4993: Store GatewaySender connection stats (#3787)
message: GEODE-4993: Store GatewaySender connection stats (#3787) * Add ClientSendStats to stats documentation * Alphabetically sort ClientSendStats to align with documentation and some fixes * Leave just one ConnectionStats constructor * Missing tests for addPdxType * Remove not used stats * More missing tests for addPdxType * Added tests
label: test

github_issues:**github_issues_comments:****github_pulls:**

1. **title:** GEODE-4993: Store GatewaySender connection stats
body: Thank you for submitting a contribution to Apache Geode. In order to streamline the review of the contribution we ask you to ensure the following steps have been taken: ### For all changes: - [x] Is there a JIRA ticket associated with this PR? Is it referenced in the commit message? - [x] Has your PR been rebased against the latest commit within the target branch (typically `develop`)? - [x] Is your initial contribution a single, squashed commit? - [x] Does `gradlew build` run cleanly? - [n/a] Have you written or updated unit tests to verify your changes? - [n/a] If adding new dependencies to the code, are these dependencies licensed in a way that is compatible for inclusion under [ASF 2.0] (<http://www.apache.org/legal/resolved.html#category-a>)? ### Note: Please ensure that once the PR is submitted, check Concourse for build issues and submit an update to your PR as soon as possible. If you need help, please send an email to dev@geode.apache.org.

github_pulls_comments:

1. > Thanks for the contribution!. > Can you please add some tests to verify your changes?. > Also, it looks like you're introducing a new (undocumented) statistic into the product, shouldn't you change the [statistics documentation](https://github.com/apache/geode/blob/develop/geode-docs/reference/statistics_list.html.md.erb) as part of this PR as well?. I completely forgot to check documentation, thanks for pointing that out. I have added a new commit with the changes. Regarding tests, what should I test? Check if the stats are in the gfs file?
2. There are a few existing *StatsTest junit tests (like CachePerfStatsTest). You might add a similar one for ClientStatsTest. You also might want to take an existing wan dunit test and modify it to test that the ClientStats stats are set properly. There are a lot of stats in there, but these especially are useful: - connections - disconnects - gatewayBatches - pings You might also want to verify the stats instance is set to the correct type. The wan dunit tests extend from WANTestBase. One that deals with stats is called ParallelWANStatsDUnitTest. Unfortunately, these tests are pretty complicated. Hopefully, you can just hook into one that is already there. Here is a method to get the ConnectionStats for a GatewaySender: ```` private void getGatewaySenderConnectionStats(String gatewaySenderId) { AbstractGatewaySender sender = (AbstractGatewaySender) CacheFactory.getAnyInstance().getGatewaySender(gatewaySenderId); if (sender != null) { int totalConnections = 0; for (ConnectionStats connectionStats : sender.getProxy().getEndpointManager().getAllStats().values()) { totalConnections += connectionStats.getConnections(); } System.out.println("Total connections: " + totalConnections); } } ````
3. Hi, I noticed this has not moved in a bit. Do you have any questions? Is there anything someone might be able to assist with? Otherwise, thank you for your efforts.
4. @mhansonp I could not work on this PR last week, this is why its still on the same state. Thanks!
5. No rush, I was just trying to make sure you had all the help you need. Thanks!
6. @jujoramos @boglesby ConnectionStatsTest already exists, but I have started reviewing the existing tests. I will be uploading the changes in separated commits, I think its better for review.
7. @jujoramos @boglesby I have added a test to verify the stats are created when a gateway sender is configured. Do you think all these test are enough for this PR?
8. @jujoramos Do you have time to review the latest update to this PR?
9. @jujoramos @boglesby Based on the fact that both reviewers approved this change, I am going to just merge it.

github_pulls_reviews:

1. I think I would remove the other constructor in favor of this new one. Any callers of the old one can use 'Client' as the prefix.
2. Done!

jira_issues:

1. **summary:** GatewaySender connection stats are captured but not stored
description: The GatewaySender connection stats are captured but not stored in the gfs file. a GatewaySenderEventRemoteDispatcher causes ConnectionStats to be created when its connection is created. For some reason, these are saved to a DummyStatisticsFactory (which causes them not to be saved): {noformat} if (pool.getGatewaySender() != null) { stats = new ConnectionStats(new DummyStatisticsFactory(), statName, this.poolStats); } {noformat} If something like this were done instead, then those statistics would be saved in the gfs file under an appropriate name: {noformat} if (pool.getGatewaySender() != null) { String statName = pool.getGatewaySender().getId() + "-" + location.toString(); stats = new ConnectionStats(ds, "GatewaySender", statName, this.poolStats); } public ConnectionStats(StatisticsFactory factory, String prefix, String name, PoolStats poolStats/*, GatewayStats gatewayStats */) { this.stats = factory.createAtomicStatistics(type, prefix + "Stats-" + name); this.sendStats = factory.createAtomicStatistics(sendType, prefix + "SendStats-" + name); this.poolStats = poolStats; } {noformat} The kinds of stats tracked by the ConnectionStats include: - connections - sentBytes - receivedBytes Here is a stack trace showing where the ConnectionStats are created: {noformat} java.lang.Exception: Stack trace at java.lang.Thread.dumpStack(Thread.java:1329) at org.apache.geode.cache.client.internal.ConnectionStats.<init>(ConnectionStats.java:1716) at org.apache.geode.cache.client.internal.EndpointManagerImpl.getStats(EndpointManagerImpl.java:225) at

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org.apache.geode.cache.client.internal.EndpointManagerImpl.referenceEndpoint(EndpointManagerImpl.java:75) at
org.apache.geode.cache.client.internal.ConnectionImpl.connect(ConnectionImpl.java:124) at
org.apache.geode.cache.client.internal.ConnectionFactoryImpl.createClientToServerConnection(ConnectionFactoryImpl.java:137) at
org.apache.geode.cache.client.internal.ConnectionFactoryImpl.createClientToServerConnection(ConnectionFactoryImpl.java:259) at
org.apache.geode.cache.client.internal.pooling.ConnectionManagerImpl.borrowConnection(ConnectionManagerImpl.java:242) at
org.apache.geode.cache.client.internal.PoolImpl.acquireConnection(PoolImpl.java:910) at
org.apache.geode.internal.cache.wan.GatewaySenderEventRemoteDispatcher.initializeConnection(GatewaySenderEventRemoteDispatcher.java:398)
at org.apache.geode.internal.cache.wan.GatewaySenderEventRemoteDispatcher.getConnection(GatewaySenderEventRemoteDispatcher.java:331)
at org.apache.geode.internal.cache.wan.GatewaySenderEventRemoteDispatcher._dispatchBatch(GatewaySenderEventRemoteDispatcher.java:208)
at org.apache.geode.internal.cache.wan.GatewaySenderEventRemoteDispatcher.dispatchBatch(GatewaySenderEventRemoteDispatcher.java:157) at
org.apache.geode.internal.cache.wan.AbstractGatewaySenderEventProcessor.processQueue(AbstractGatewaySenderEventProcessor.java:610) at
org.apache.geode.internal.cache.wan.AbstractGatewaySenderEventProcessor.run(AbstractGatewaySenderEventProcessor.java:1051) {noformat}
```

jira_issues_comments:

1. Commit 3ea7dd1e46e2fd3c06b424ec24e077dfd068bbc3 in geode's branch refs/heads/develop from Alberto Bustamante Reyes [<https://gitbox.apache.org/repos/asf?p=geode.git;h=3ea7dd1>] GEODE-4993: Store GatewaySender connection stats (#3787) * Add ClientSendStats to stats documentation * Alphabetically sort ClientSendStats to align with documentation and some fixes * Leave just one ConnectionStats constructor * Missing tests for addPdxType * Remove not used stats * More missing tests for addPdxType * Added tests
2. Transition from Resolved to Closed for Apache Geode 1.11.0 RC4 release.