DE – 848: Hazelcast Cache Reload/Instance Unavailable Issue:

Below are the notes for the Hazelcast discussion happened with Hazelcast team:

Issues outstanding that needs to be addressed and solution proposed from team:

1. How to overcome/Handle the connection failure on server start up or when no Hazelcast instance available.??

***Solution:***

* Today we have a complete dependency on Hazelcast instance and application doesn’t works if no instance available.
* In the XML set up for Hazelcast today, addition of the below element/property can be used to address the connection failure/Unavailable instance scenarios. And also tries to reconnect the Hazelcast when the instance are up with no impact on application.

<connection-strategy async-start="true" reconnect-mode="ASYNC">

If No Instances, throws

Hazelcast Client Exception, no Application impact.

1. How to handle the NULL cache returned by Hazelcast or exception thrown when reading the cache...??

**Solution:**

1. One of the proposed solution is to catch the exception in calling method thrown by Hazelcast instance when no cache available, which we are doing today. But needs to handle it more efficiently in code.
2. Switching to different method which doesn’t uses any cache annotation that executes DB query.

**Note**: This scenario can be handled in multiple ways, which needs more technical discussion within team and probably one more call with Hazelcast team if required based on the approach finalized within team.

1. Sever team to work on the setup for replication of Maps across the clusters.

* Using WAN -Replication while configuring to replicate cache/maps across multiple clusters.

*Code Snippet for Generating/passing different cache key (client code) for same cache name(for example Branding).*

public class CustomCacheResolver implements CacheResolver {

private final CacheManager cacheManager;

public CustomCacheResolver(CacheManager cacheManager){

this.cacheManager = cacheManager;

}

@Override

public Collection<? extends Cache> resolveCaches(CacheOperationInvocationContext<?> context) {

Collection<Cache> caches = new ArrayList<>();

if(context.getTarget().getClass() == GatewayRepository.class){

if(context.getMethod().getName().equals("findByBulkId")){

caches.add(cacheManager.getCache("gatewayCache"));

}

}

return caches;

}

}