**Problem Statement**: Stuck threads in external jar

**Priority**: Severe (P1)

**Environment**: Production

**Server**: Oracle Weblogic

**RCA**: Threads taking too long to execute in the external jar.

**Description**:

* The external jar is provided by the security team which is central to all the applications.
* Initially the number of applications onboarded was significantly lower and hence the jar is not tuned for performance.
* This makes the thread look stuck because the jar is taking too long to process it and the Weblogic server has a threshold set after which the thread is reported as stuck.
* The Threads appear to stay stuck until the server is restarted.

**Impact**: This is a major incident since the database is central to many applications and all the read write operations are blocked temporarily.

**Reproducible**: Yes

**Steps to Reproduce**:

* Use the load and performance tool to simulate the same number of requests as in production.
* Monitor the threshold at which the threads get stuck.

**Current** **implementation**:

Component

External Jar

Authorization module

* In the current implementation, we have a central component which interacts with the database and is used by various applications through web services.
* An external Jar provided by the Security team.
* This jar is imported into the component and for each incoming request the authorization logic is being called.

**Proposed** **Solution**:

Component

Authorization module

Internal Library with Rest Client

Cache

* Remove the current implementation of the external jar.
* Build library with a rest client to consume the rest API from the security team.
* Implement a caching mechanism which will cache the requests for 24hrs.
* Import the rest client module as a library which can then be used for other components as well.
* Rest API provides appropriate status codes in case of failure, which will help us to identify issues faster.