**Onboarding Speed Optimization(Initial Investigation)**

**General Feedback:**

We can introduce cache and optimize the middlewares to reduce the number of teller api calls to improve the speed of pages.

Below are some page specific optimizations required.These pages have the highest load time:

* About Company – Company Details
  + Every time a new route is called, authenticate middleware is called that fetch the user data from teller every time.
  + Set Entity and Set Entity case, check key person middleware call every-time a route is called. We need to optimize the logic behind there middleware to reduce the page load time.
  + We can introduce the caching mechanism for the similar data throughout the onboarding process so that database access can be reduced.
* Save the key person
  + When key people is saved, it call multiple config from teller that make multiple teller API calls, we have to optimized these multiple API calls into single API call to reduce the processing time.
* Account Threshold
  + At Gateway side, setMambuGroup, checkForMEssages and auth.activeMambu middleware called every time and some of them call teller API every time that increase the response time. Optimizing the teller API calls, the response time can be reduced.
* User Management
  + At Gateway side, setMambuGroup, checkForMEssages and auth.activeMambu middleware called every time and some of them call teller API every time that increase the response time. Optimizing the teller API calls, the response time can be reduced.
  + When we load this page, It also call 2 teller API to get some user data based on a parameter, we can optimize it by converting these 2 API call into 1 and return the result for both API in a single call. In that way we can improve some page load time as well.
* User Management Edit
  + At Gateway side, setMambuGroup, checkForMEssages and auth.activeMambu middleware called every time and some of them call teller API every time that increase the response time. Optimizing the teller API calls, the response time can be reduced.
  + When we click on edit user, I call 2 teller APIs. 1 API call to get User details and 1 API call to check if we already have any change for this user or not. Calling these 2 APIs takes time. If somehow we can convert this into a single API call, the overall page response time can be reduced. To do so, I have to write a new API because I cannot make changes in the existing APIs to avoid ripple effect on other places.