

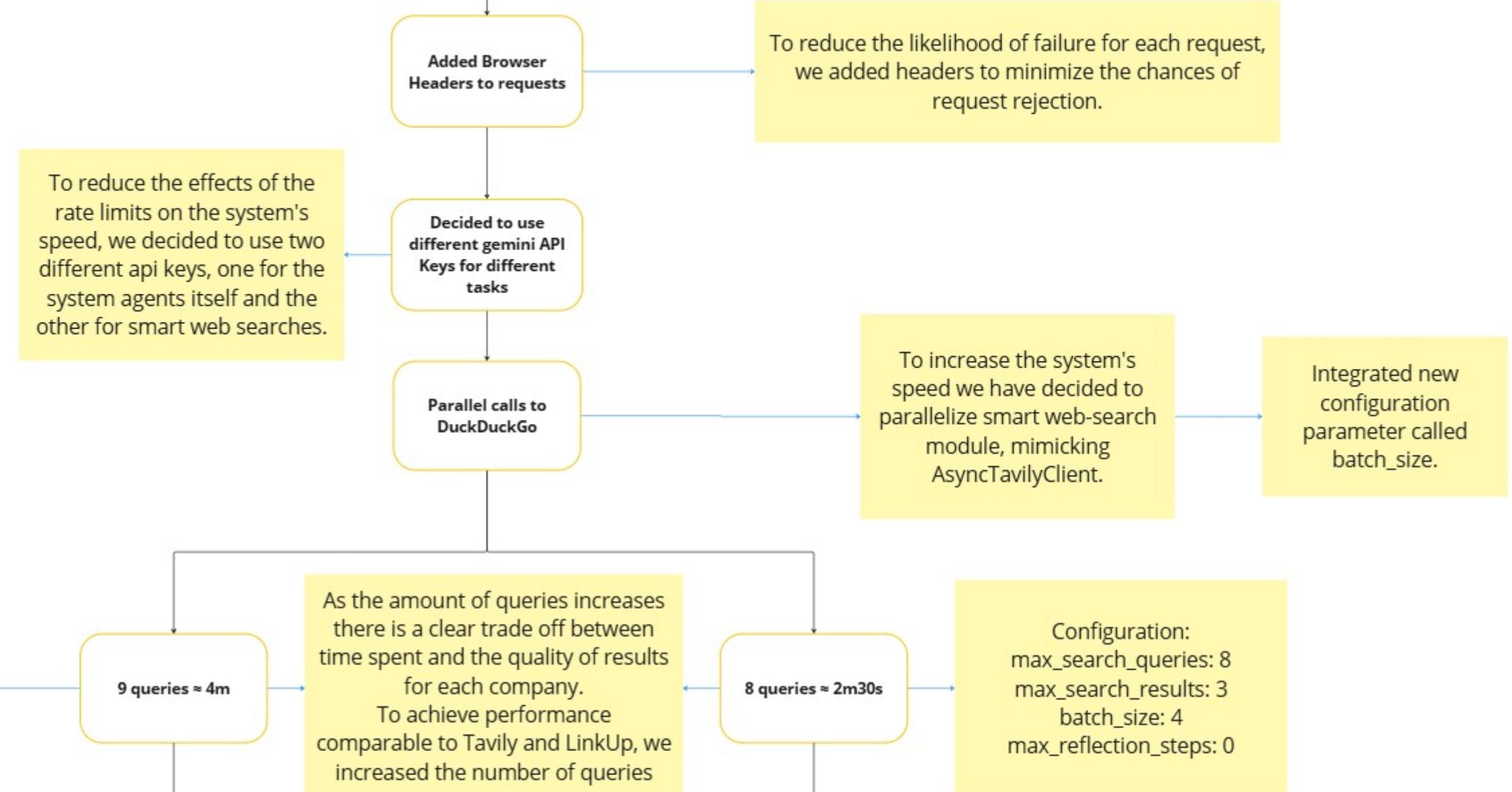
The reduction in max\_search\_results when decreasing max\_search\_queries from 9 to 8 is due to Gemini's free-tier limit of 15 requests per minute.

- With max\_search\_queries = 9: 3 batches of 3 queries run in parallel ( $3 \times 4 = 12$  requests), staying within the limit.
- With max\_search\_queries = 8: batch\_size increases to 4, reducing batches to 2, which speeds up execution. Again,  $4 \times 3 = 12$  requests, staying within the limit.

This setup balances performance while adhering to Gemini's constraints.

Configuration:  
max\_search\_queries: 9  
max\_search\_results: 4  
batch\_size: 3  
max\_reflection\_steps: 0

Due to some undocumented changes to DuckDuckGo API itself, we have experienced a distinct drop in quality. To amend this, we have decided to forgo the usage of DuckDuckGo API and used a combination of selenium and DuckDuckGo Search itself to collect URLs.



We tweaked the prompts that the system used to prevent more/less searches on the web than what was demanded.

Integrated new configuration parameter called batch\_size.

To reduce the likelihood of failure for each request, we added headers to minimize the chances of request rejection.

