

SCALABILITY

FACEBOOK

INTRODUCTION

NEWS FEED





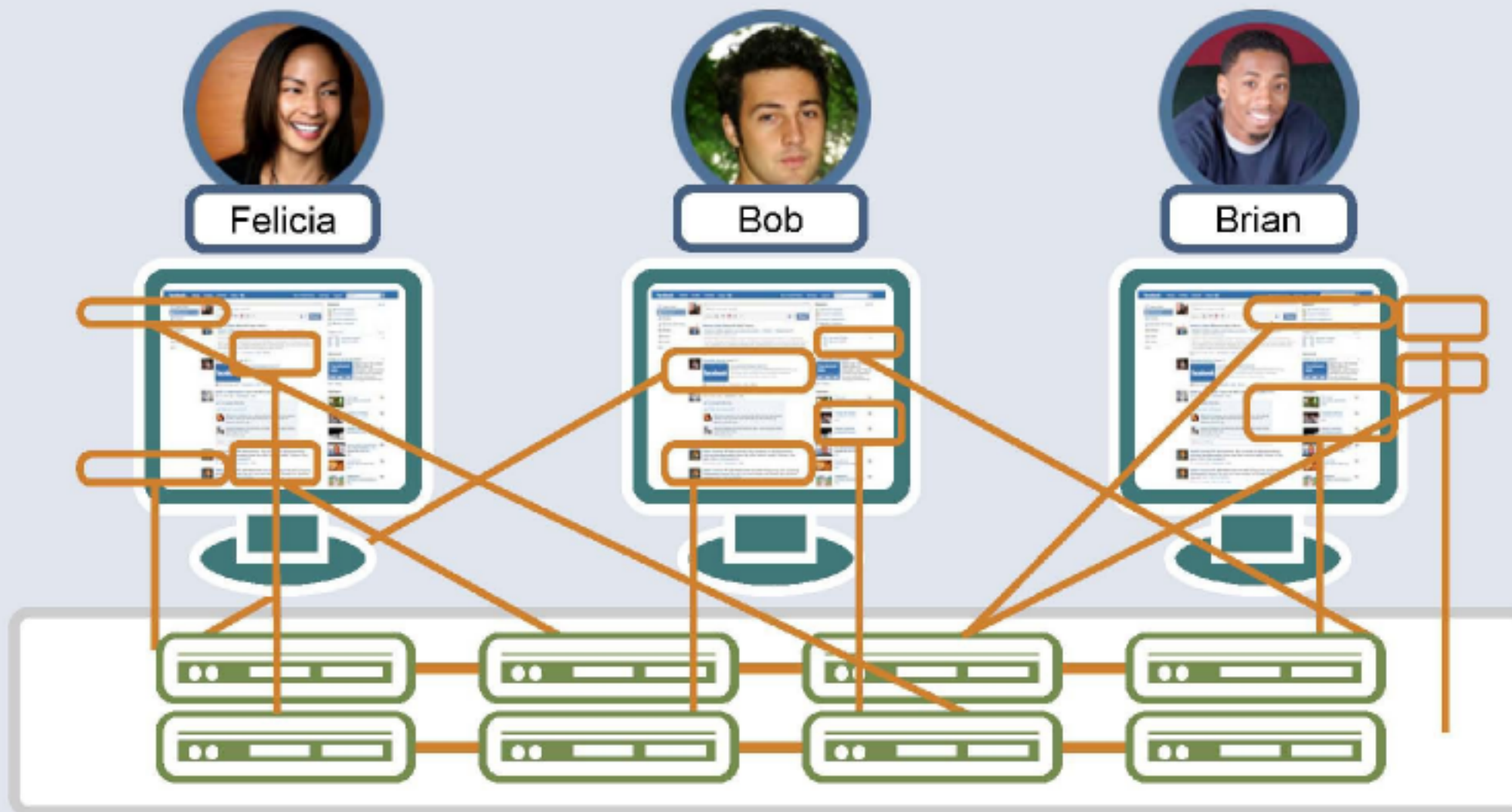
SCALABILITY NEWSFEED

PROBLEM & SOLUTIONS



400 million unique home pages

Scaling Facebook: Interconnected data



HIPHOP!

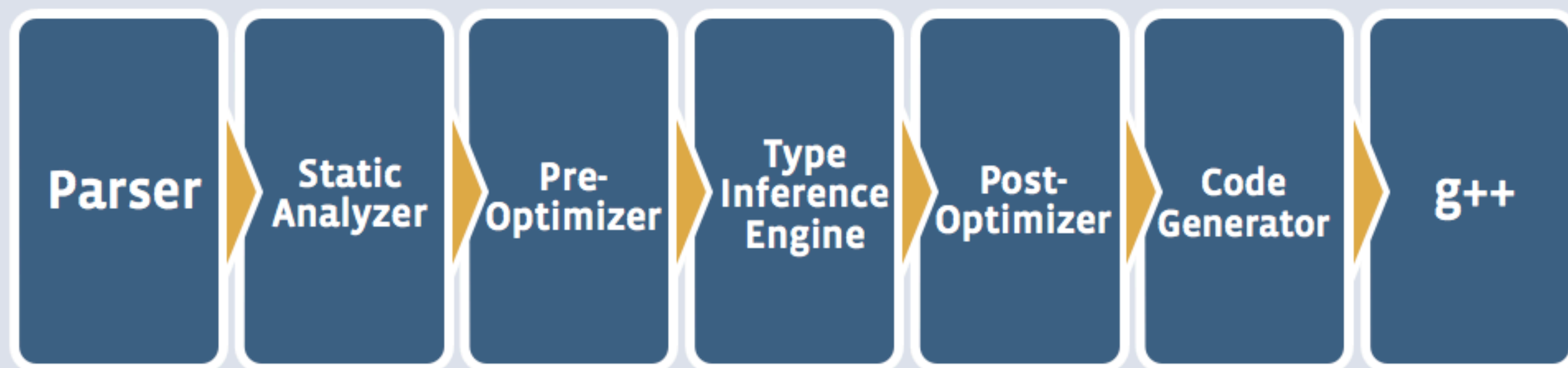
SOLUTION #1



HipHop
for

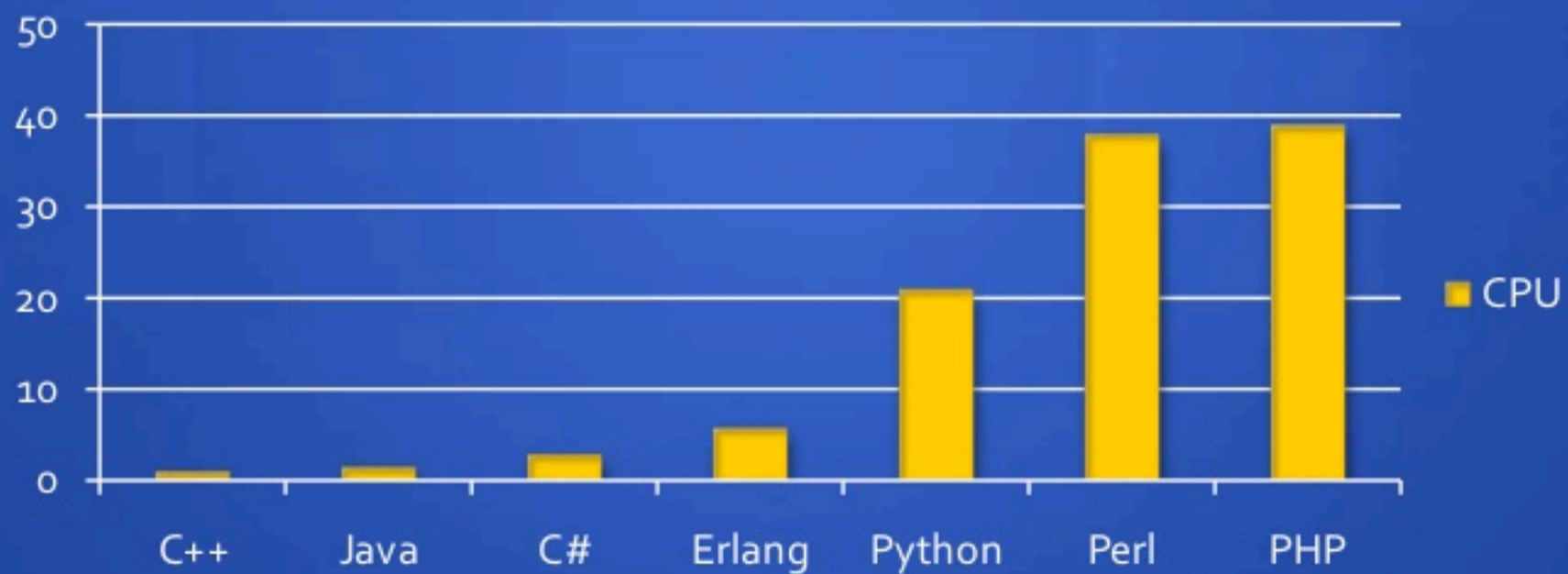


HipHop for PHP transformation process



PHP is slow ☹️

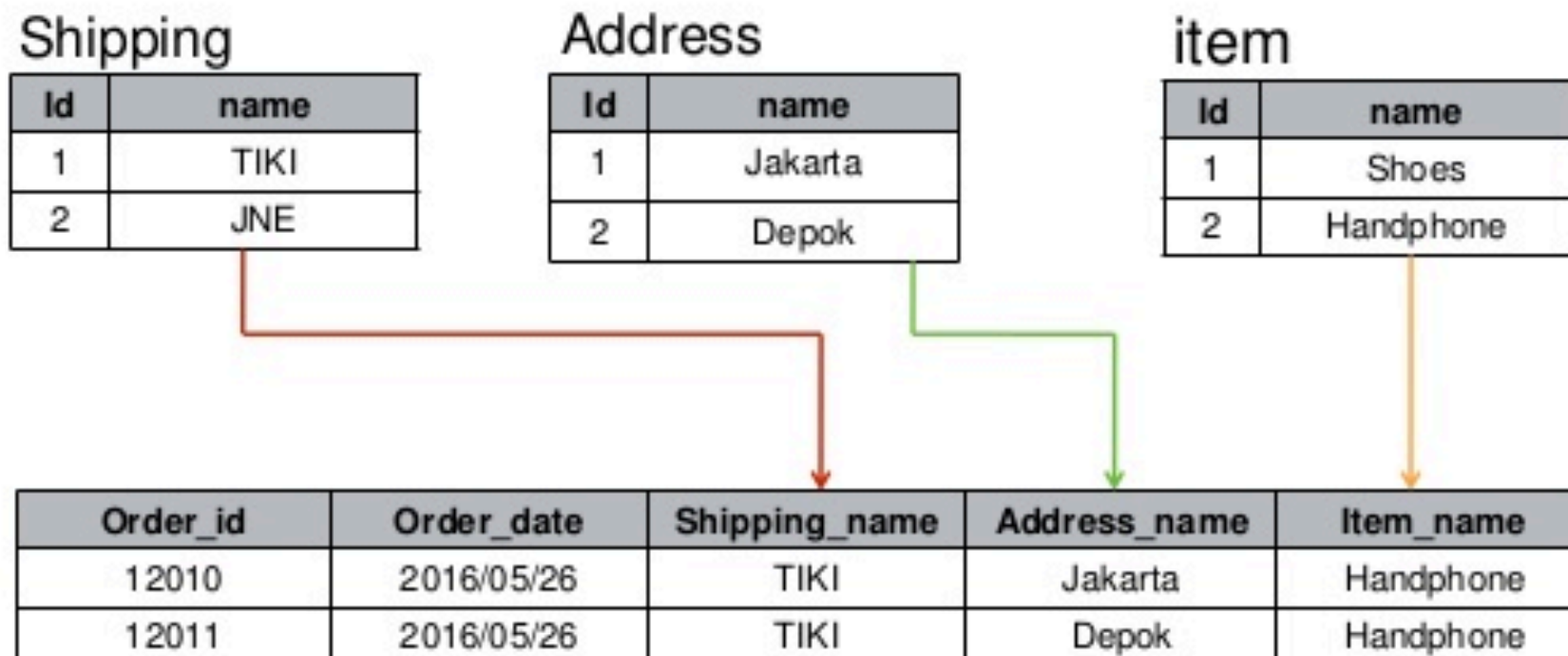
<http://shootout.alioth.debian.org/u64q/benchmark.php?test=all&lang=all>



DENORMALIZATION!

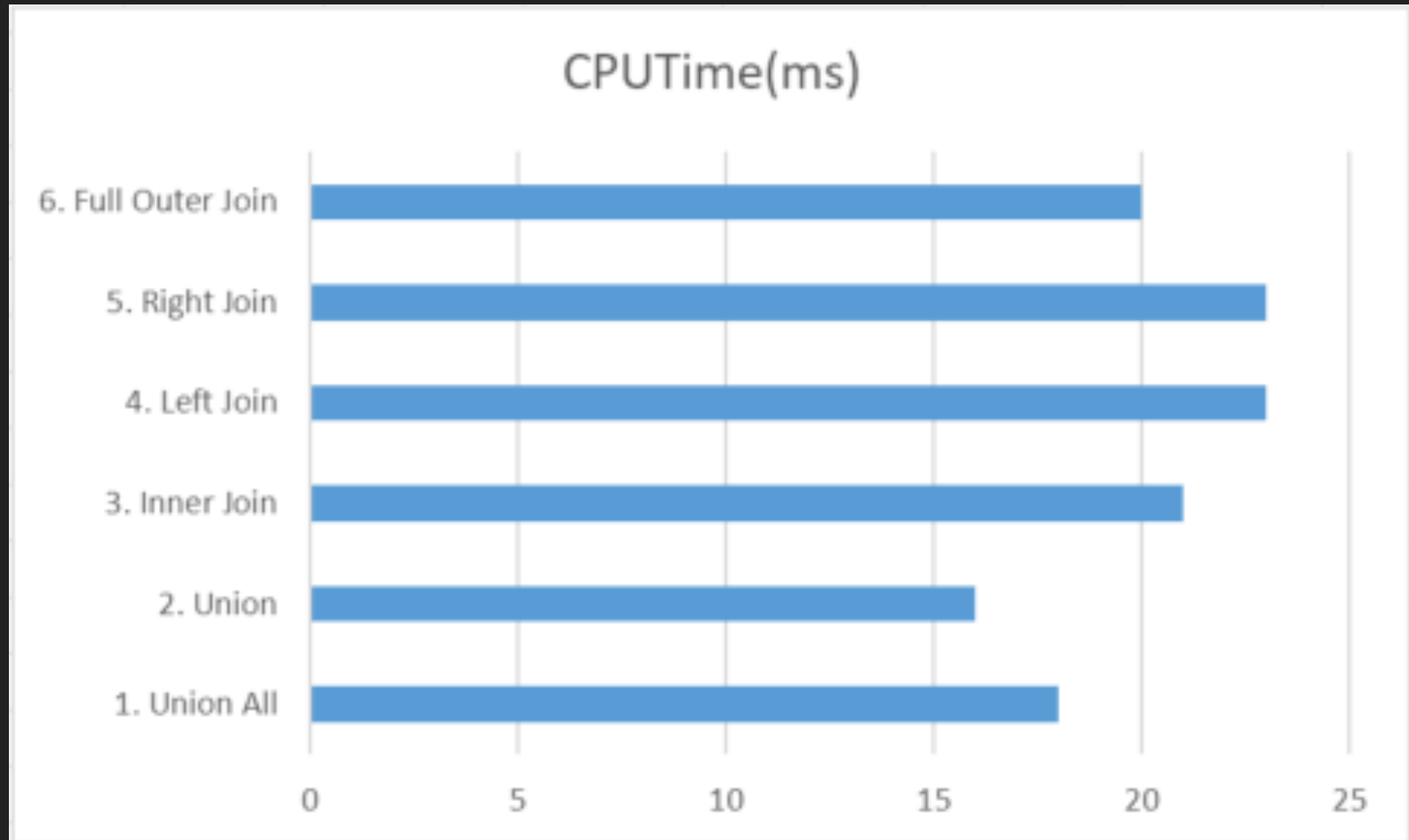
SOLUTION #2

Denormalization table



Still, denormalization brings the danger of update anomalies back to the database. Therefore, you have to do it deliberately. You should document any denormalization thoroughly.

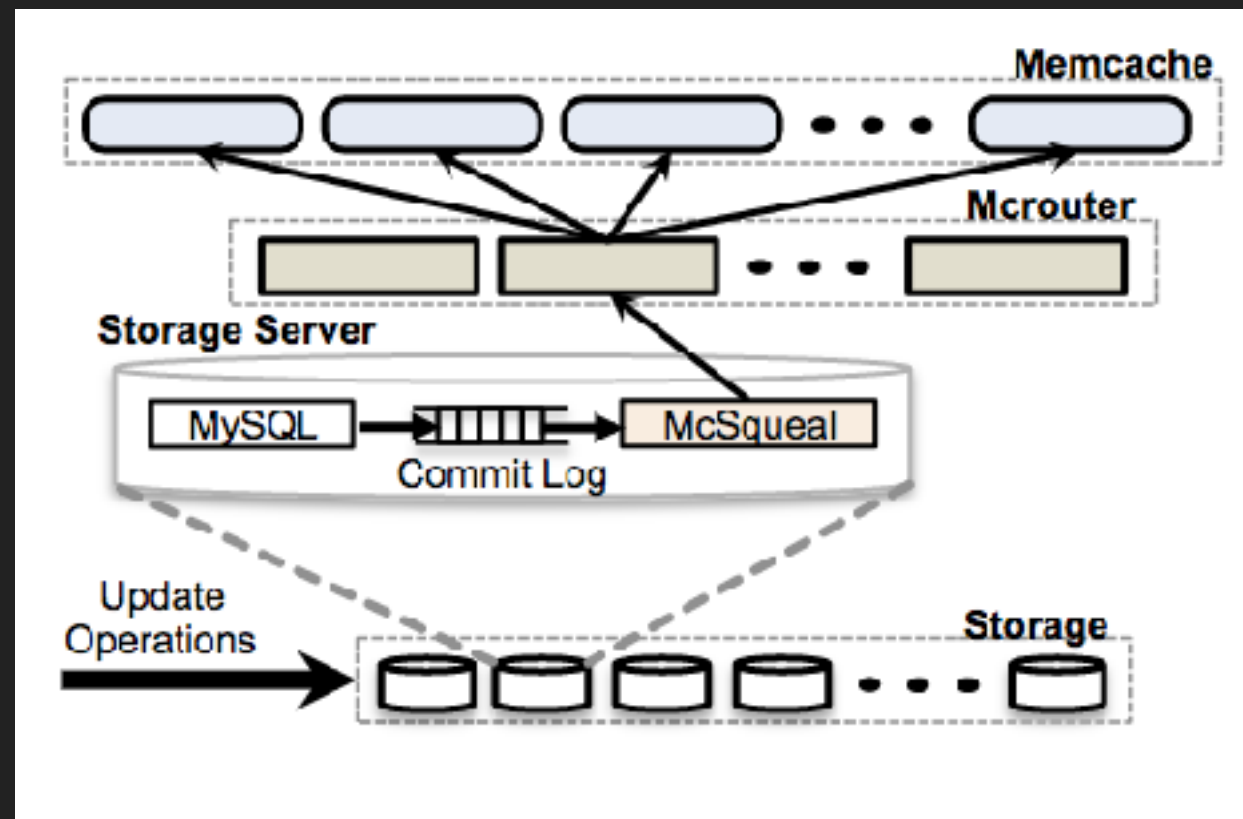
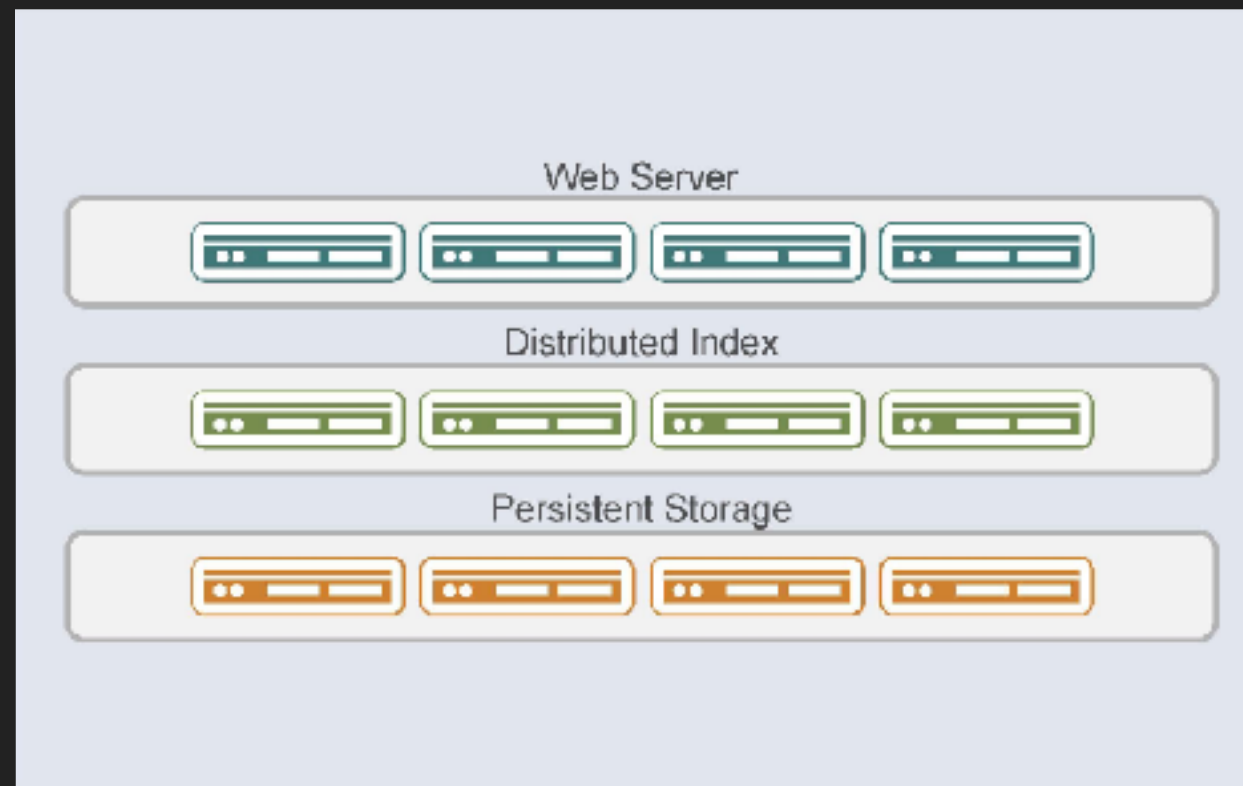
DECREASE JOIN OVERHEAD



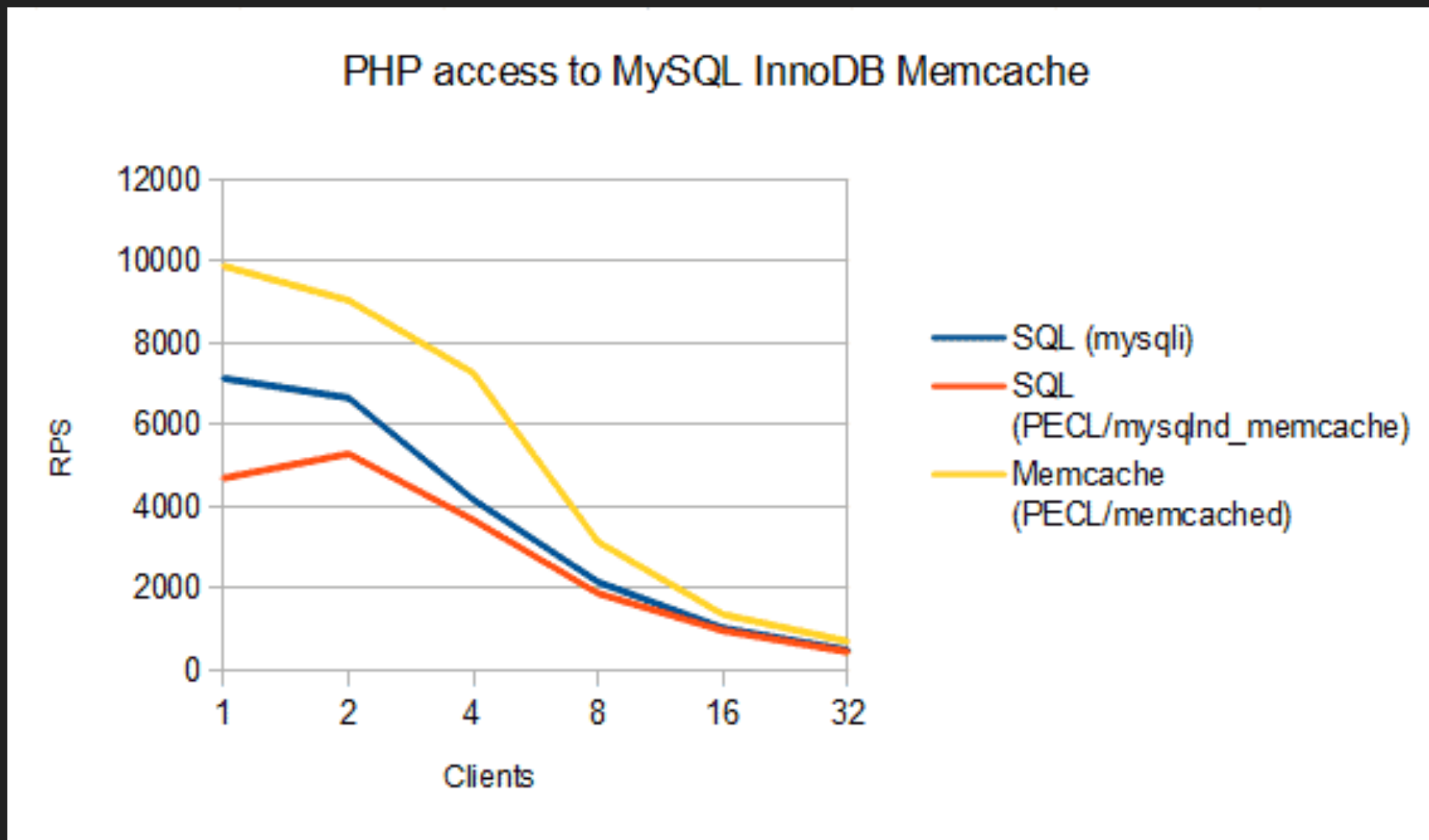
MEMCACHE!

SOLUTION #3

SOLUTION 3



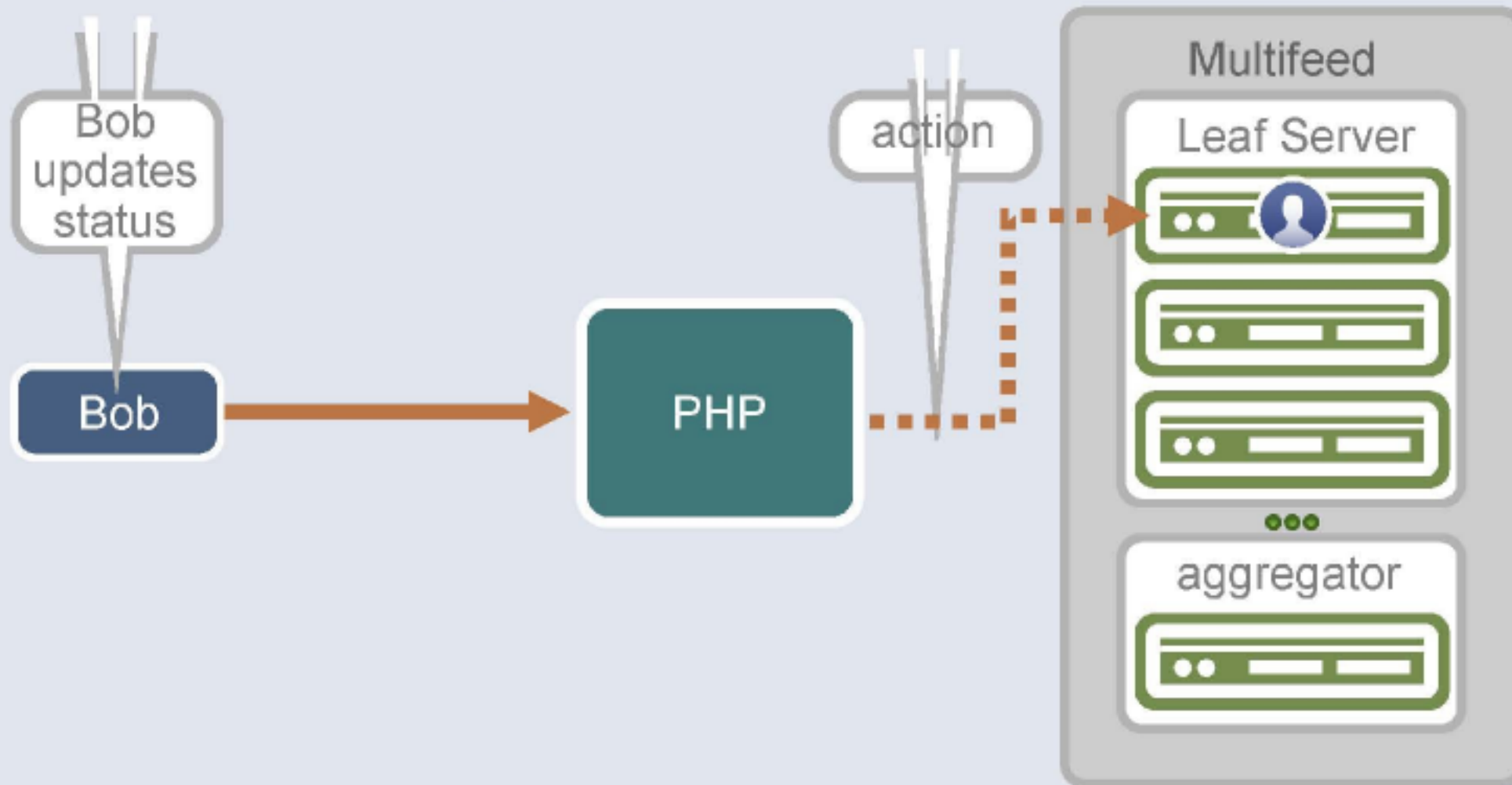
FASTER!



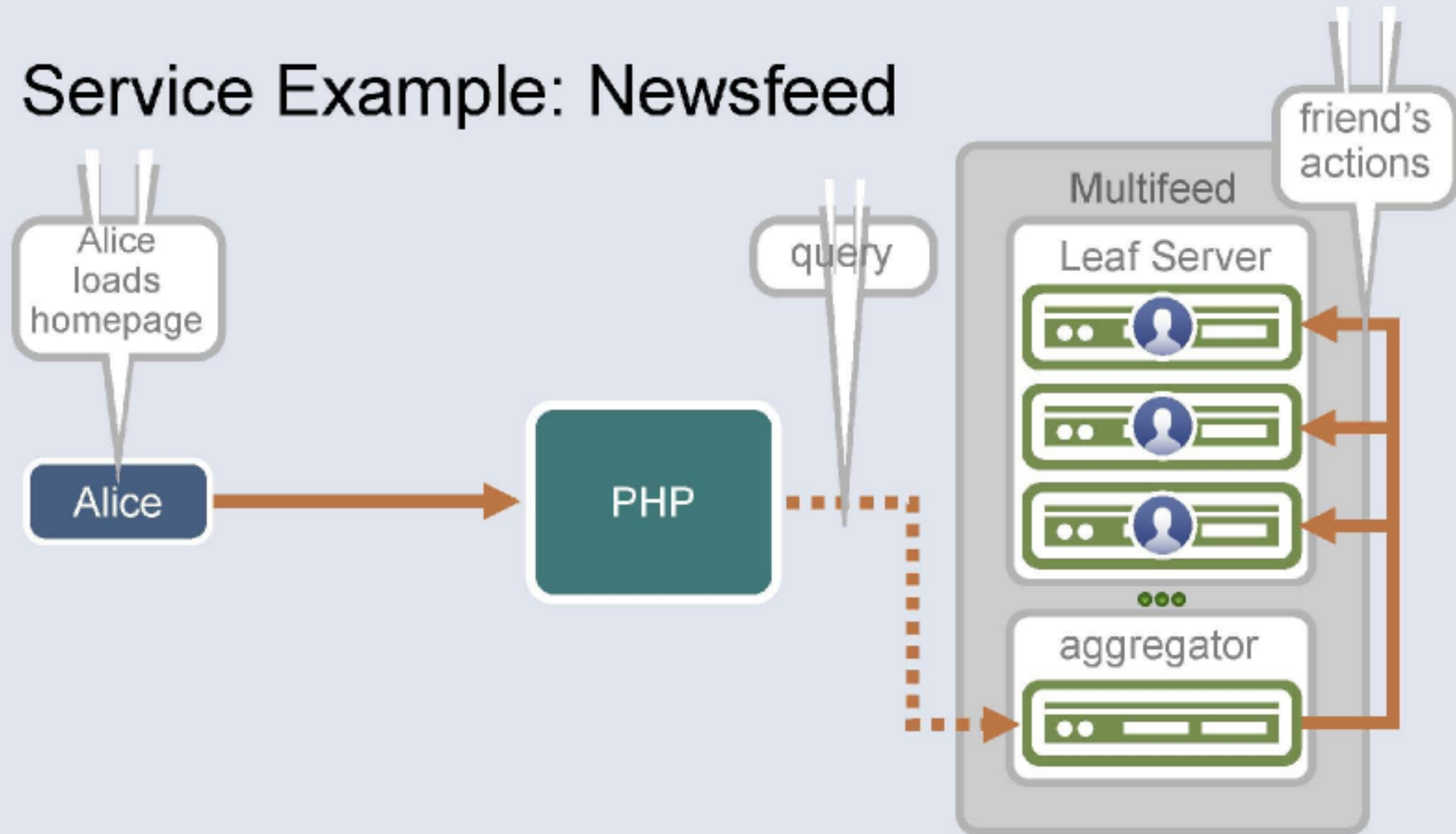
DISTRIBUTED VIRTUAL FEED STORAGE!

SOLUTION #4

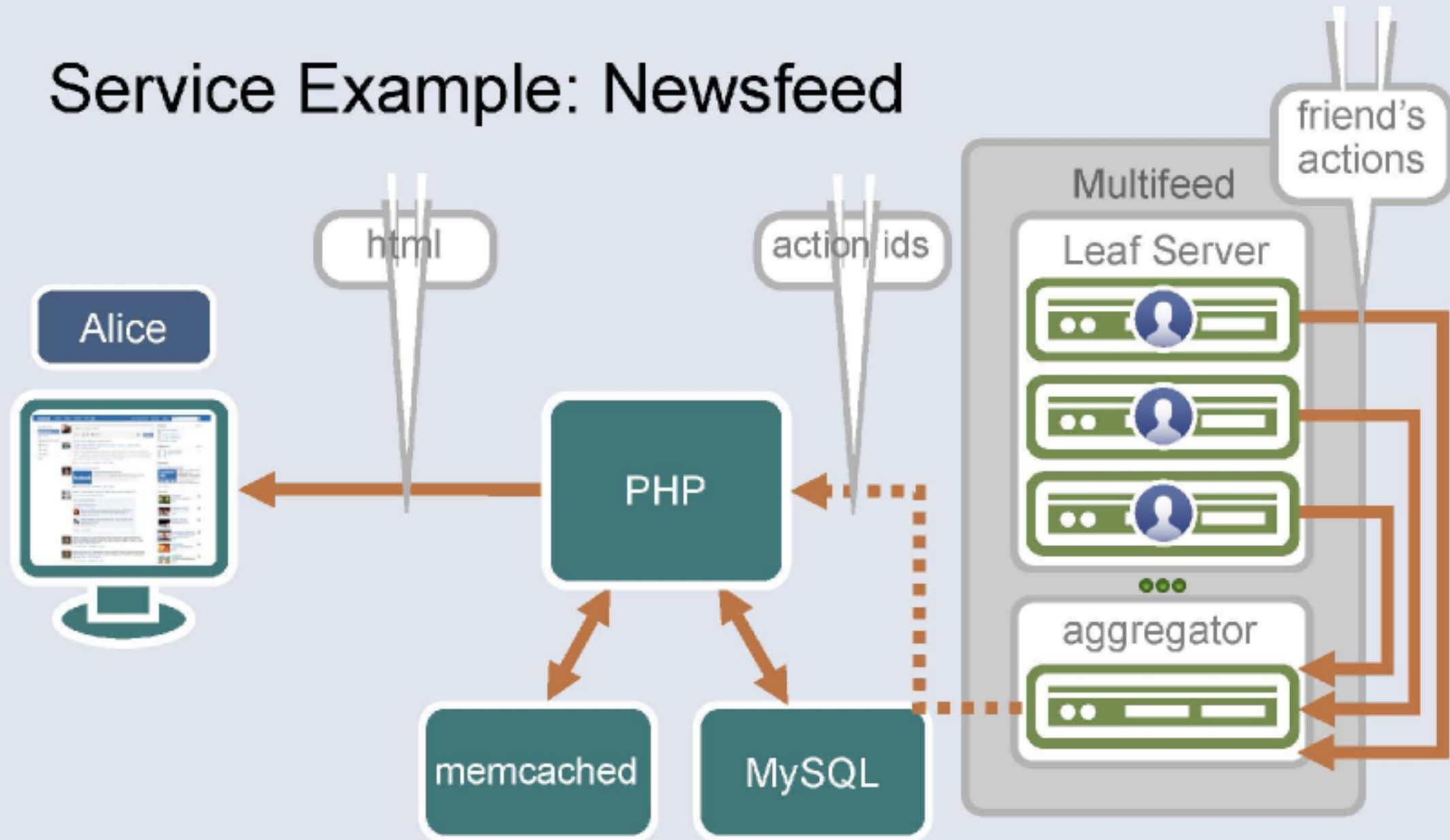
Service Example: Newsfeed



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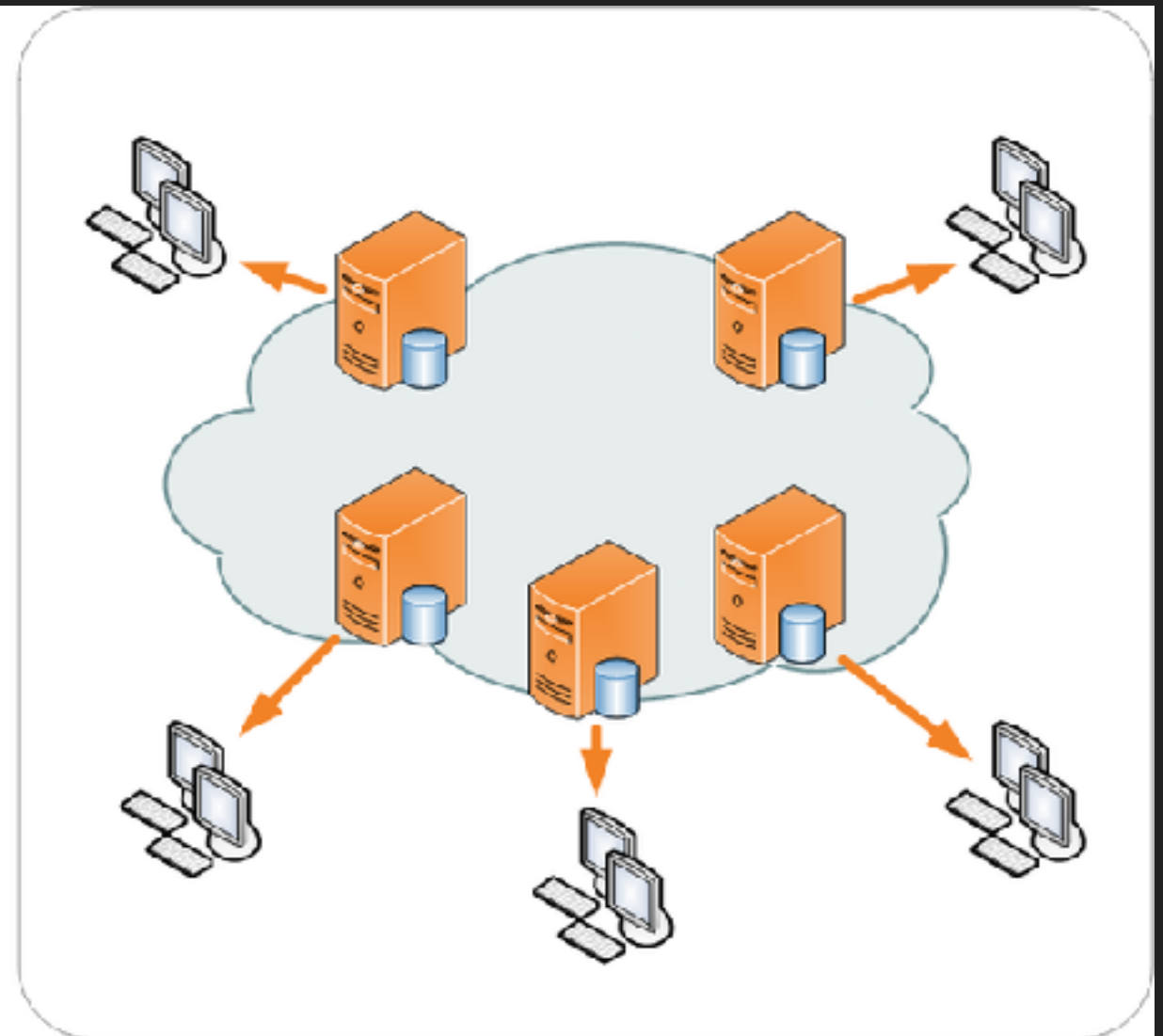
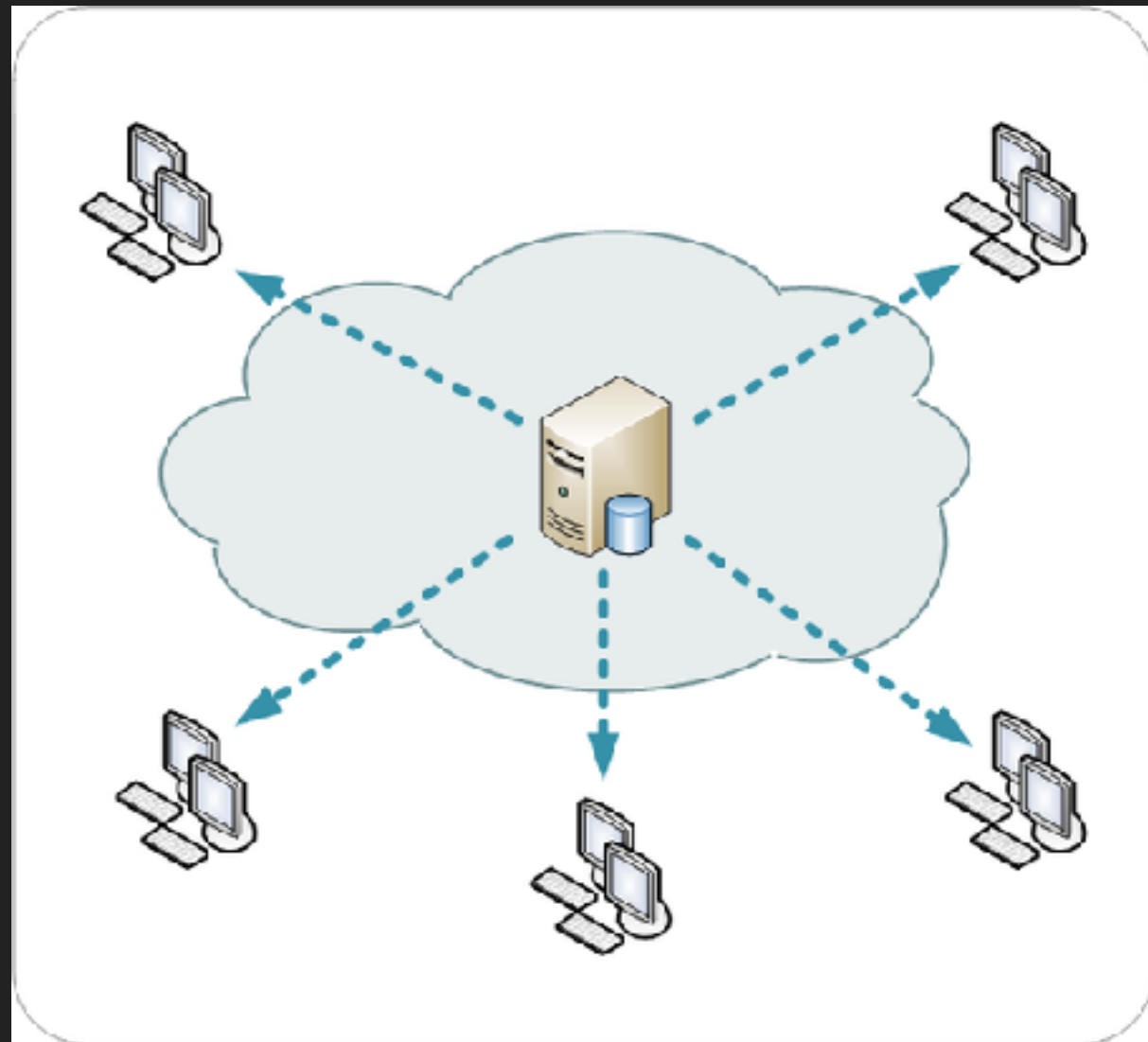
Service Example: Newsfeed



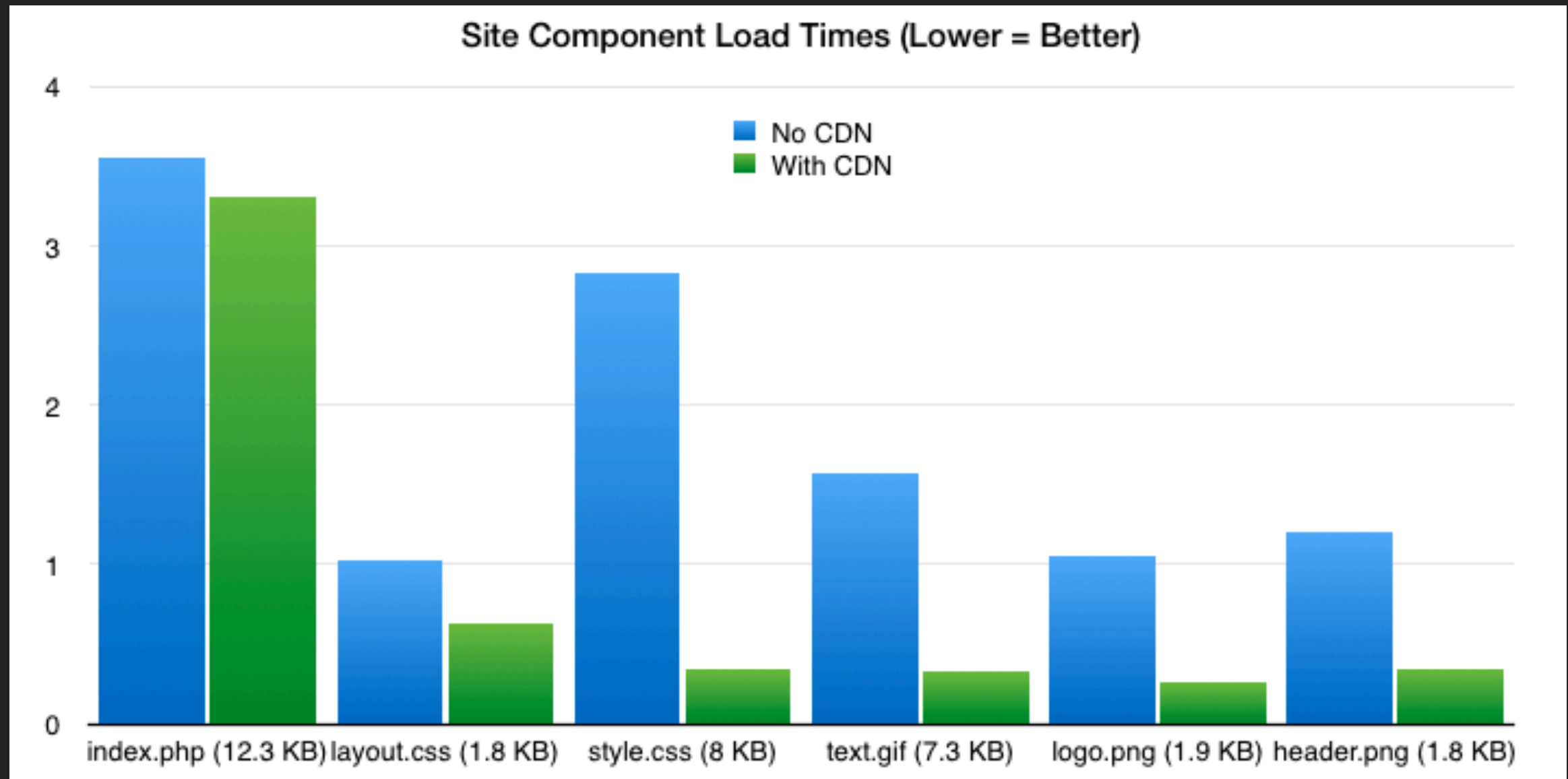
CLOUD DELIVERY NETWORK!

SOLUTION #5

SOLUTION 5



FASTER!





database availability 

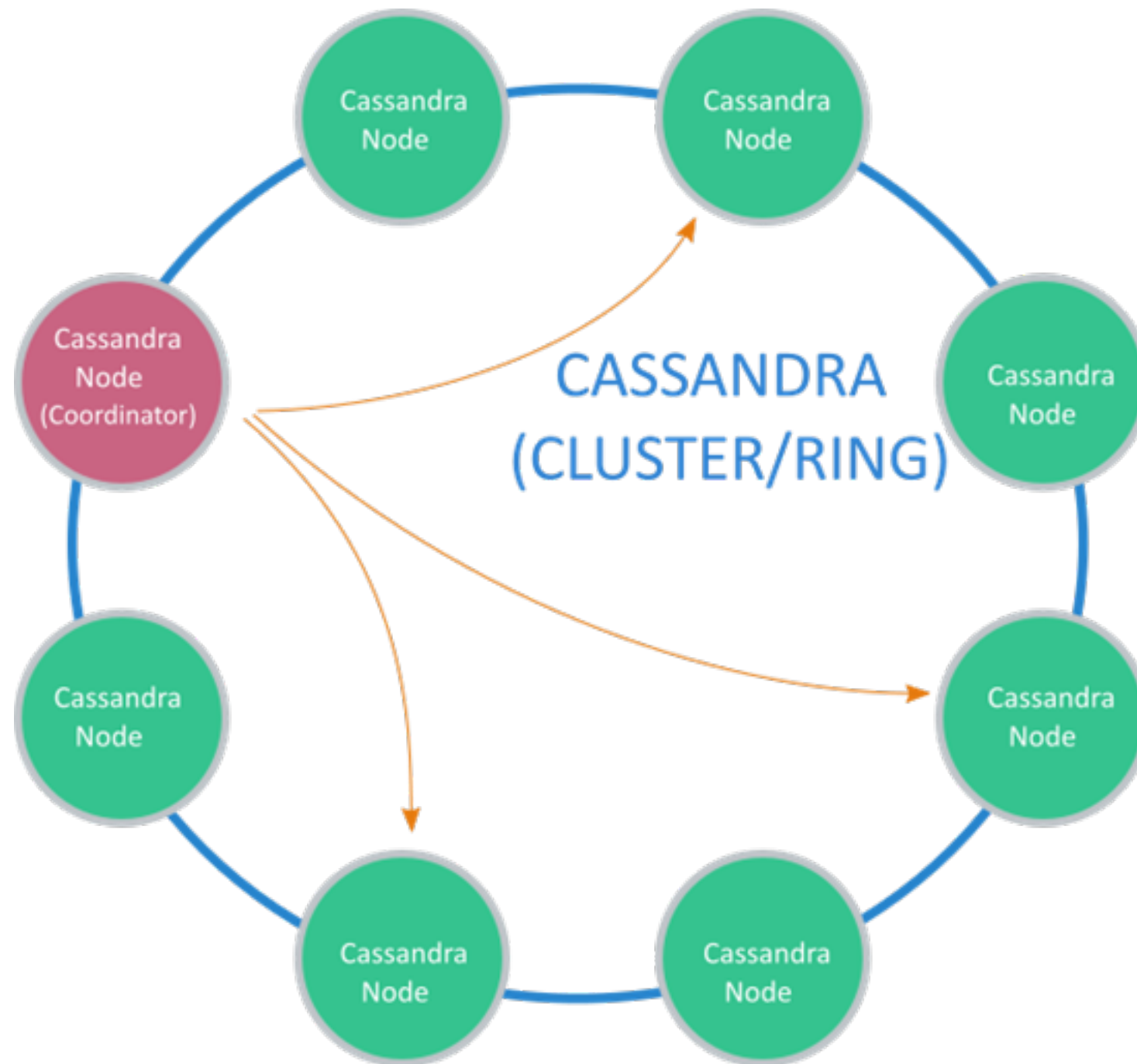


SCALABILITY AND HIGH AVAILABILITY DATABASE

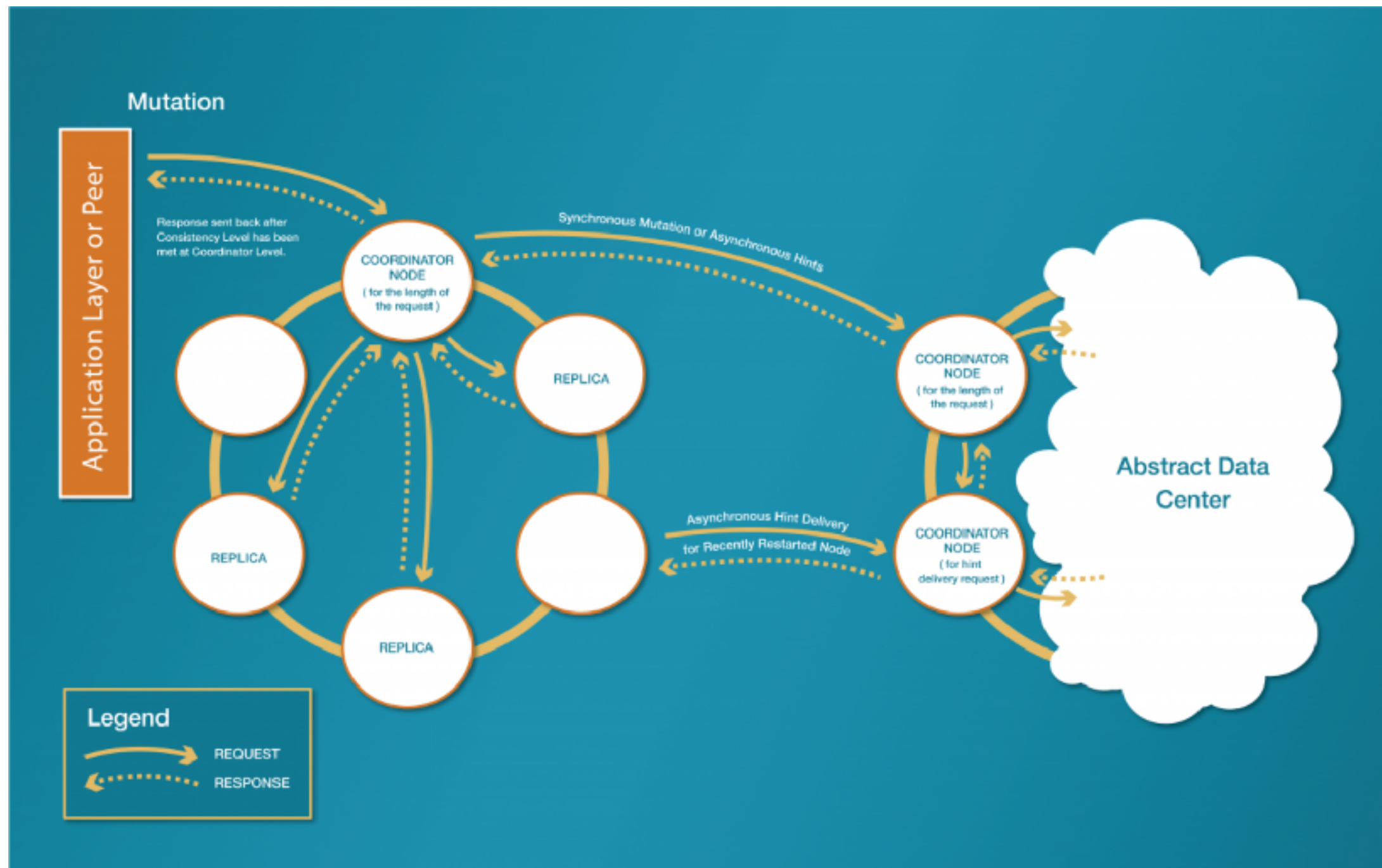
SOLUTION #6



SOLUTION 6



SCALABLE & PROVEN FAULT-TOLERANCE!



THANK YOU