

If you want to reduce latency,

learn these 12 rules:

What	would	you	add	to	the	list?
------	-------	-----	-----	----	-----	-------

PS - If you enjoyed this post, you'll love my free newsletter on system design.

Join 140,000+ engineers and get the powerful system design template:

→ https://lnkd.in/eWAp5ZwE

Repost to help others learn system design.

Follow Neo Kim for more.

## 12 Golden Rules for Low **Latency** Neo Kim

- 1. Use database index to reduce access time
- 2. Compress the payload to reduce data transfer time
- 3. Group requests to reduce network overhead and round-trip time
- 4. Use HTTP 2 to send requests in parallel through multiplexing
- 5. Use CDN to keep data closer to the users and reduce round-trip time
- 6. Reduce external dependencies to minimize unnecessary network calls
- 7. Add a load balancer to distribute traffic uniformly and reduce server load
- 8. Scale vertically with more memory and storage for faster processing time
- 9. Use cache to serve popular data from memory instead of guerying the database
- 10. Use connection pooling for databases and networks to avoid connection overhead
- 11. Use a message queue to handle computationally intensive tasks in the background
- 12. Use an efficient data serialization format, such as Protobuf, to reduce processing time

Get powerful system design template for free: newsletter.systemdesign.one 🛛 😭 Neo Kim 🤡





39 comments 31 reposts

Like Send Comment Repost

Most relevant



Anton Martyniuk • Following

Microsoft MVP | Helping 30K+ Software Engineers Improve .NET Skills and Craft Better Software | Techni...

1h

Nice list Neo Kim

I will add:

- HTTP 3 (if available)
- gRPC for backend vs backend communication as it uses HTTP 2.0 and ptotobuf

...more



ah, good one!

Like 💍 1 | Reply

1h