

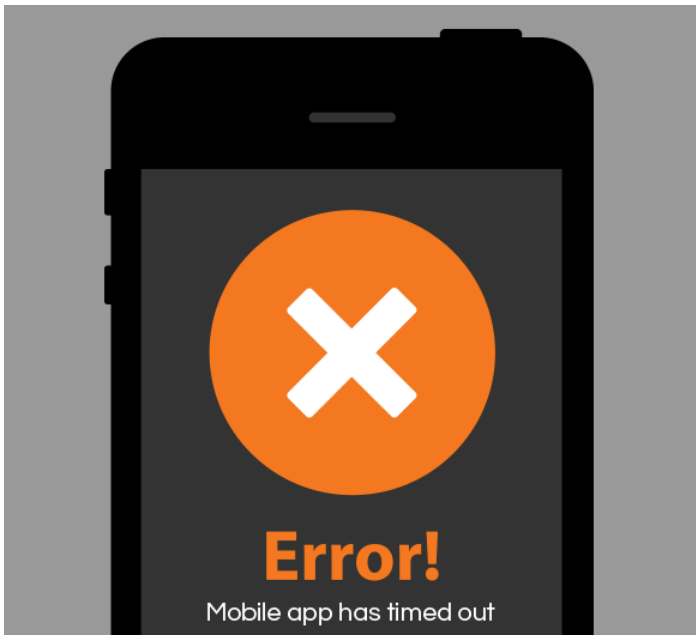
## Mobile App Errors: What They Are, and How To Stop Them

Apps rely on mobile networks to deliver content and experiences to users, but those networks can be unpredictable. **Timeouts, stalls** and **missing content** can *kill* the customer experience—and lead to frustration, app deletions and lost revenues.

Don't worry—*ALL* mobile apps struggle with network errors to different degrees. These aren't errors caused by application servers or origin servers, but by issues in the Internet, especially over congested and unreliable mobile networks. Examples include:

- timeouts
- images that don't load
- content feeds that leave giant blank holes in the app
- uploads that don't complete
- stalling and freezing
- checkout/booking errors
- search errors

These are the issues that cause users to leave 1-star ratings in the app stores, and that can help cause app retention rates to plummet.



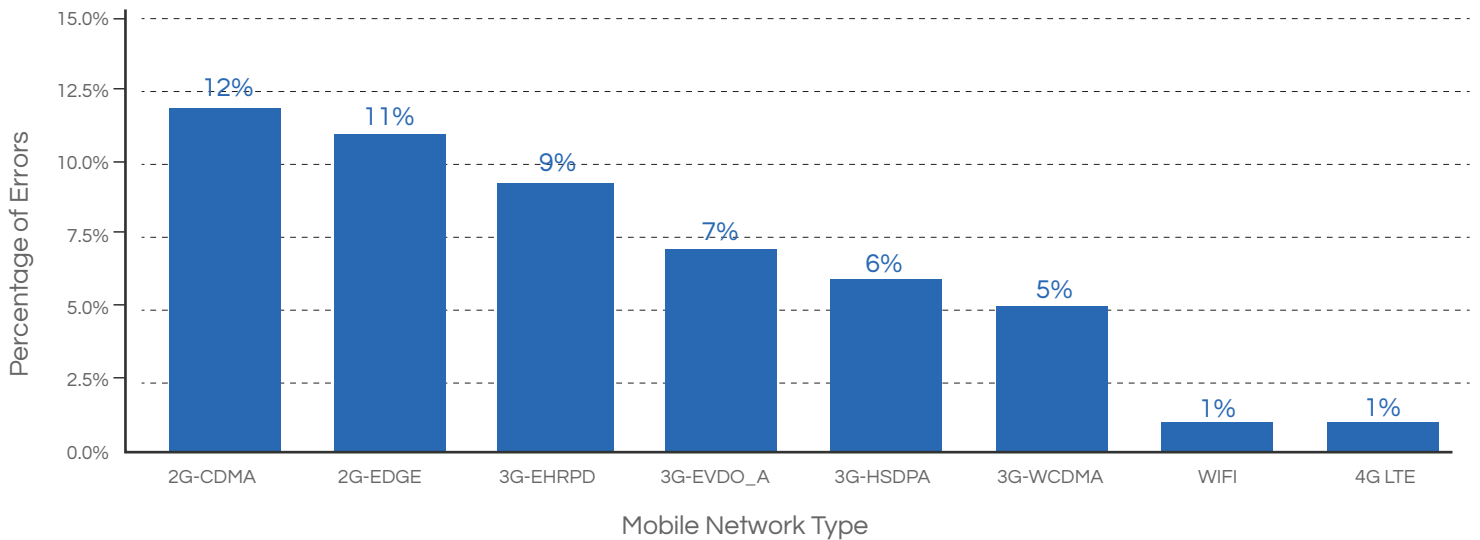
### Error Rates Around The World

The average error rate for a mobile app is between **1-12%**, which includes **timeouts**—when an app's responses effectively “freeze”, and forces the user to refresh or navigate elsewhere, since images or other content can't be delivered. Errors are especially troublesome on the world's 3G and 2G mobile networks. In general, they're lower on faster networks and higher on slower networks.

Even within countries in which 4G/LTE networks are dominant, huge pockets of any given country—such as in rural areas in the United States and the UK—*aren't* running on the more advanced networks.

**High error rates are not acceptable for today's mobile app customers.** They'll quickly take their app usage to a competitor's app or elsewhere if they're made to suffer through annoying errors and timeouts. A whopping **79%** of consumers say they'll only try an app 1-2 more times if it doesn't work the first time. A recent Neumob survey even found that 63% of travel app users had deleted travel apps from their smartphones simply due to poor performance.

## Mobile App Error Rates by Network Type



### Normalizing Your App's Error Rate

The Neumob SDK can **remove up to 90% of mobile app errors**, and dramatically reduce timeouts by speeding up app responses, even on the world's slowest networks. We've brought error rates well below 1% for dozens of mobile apps by severely reducing network latency.

Error rate reductions have a direct correlation to reductions in mobile app churn, thereby keeping a customer using an app longer, which in turn generates more revenue, whether in the form of direct money spent within the app or via extra ad impressions that came from keeping the customer from churning.

What these improved error rates offer an app's users is **predictability and stability**. The likelihood of repeated, frustrating, error-filled app experiences is lessened, therefore increasing not only customer satisfaction, but also their willingness to keep the app on their devices (and to use it more frequently).

Take it from Neumob's customers directly. Seva Billevich, Aviasales' Mobile Development Team Lead, said that "Neumob has done exactly what we needed it to do: **reduce errors that keep our customers from completing their transactions**. Now, as Aviasales continues to expand our apps into new countries and onto new mobile networks, we can do so with the confidence that network errors will be totally under control."

