

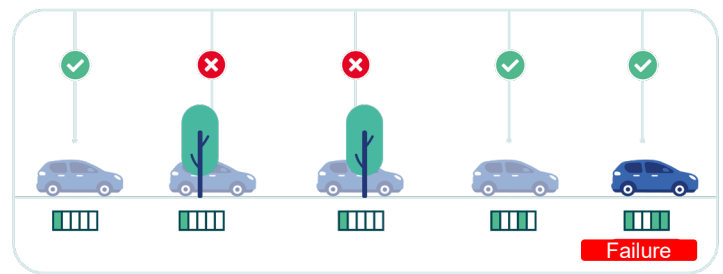
FAZZT[®] Smart FEC

Over twenty-five years, KenCast built a first-class reputation for perfecting file and stream delivery to some of the world’s most demanding customers. KenCast’s latest patented FEC algorithm raises the bar higher. Standard FEC works by solving for holes in a file or stream with supplementary packets generated prior to the original transmission and sent together with the source data. With Fazzt Smart FEC, all of the transmitted packets are supplemental/error correction packets and no source packets are sent out.

This innovation increases bandwidth efficiency when multicasting content to fixed sites but it is invaluable when sending to receivers in-and-out of coverage, such as groups of moving vehicles. The three examples below illustrate why Smart FEC is, well, smarter.

Single Transmission

In this scenario, a file is transmitted once in five segments of 20% each. The car receives the first 20% before it enters into a tree canopy that prevents the distribution of the second and third segments. The car emerges into the clear in time to receive the fourth and fifth segment but it does not have a complete file. The transmission failed.

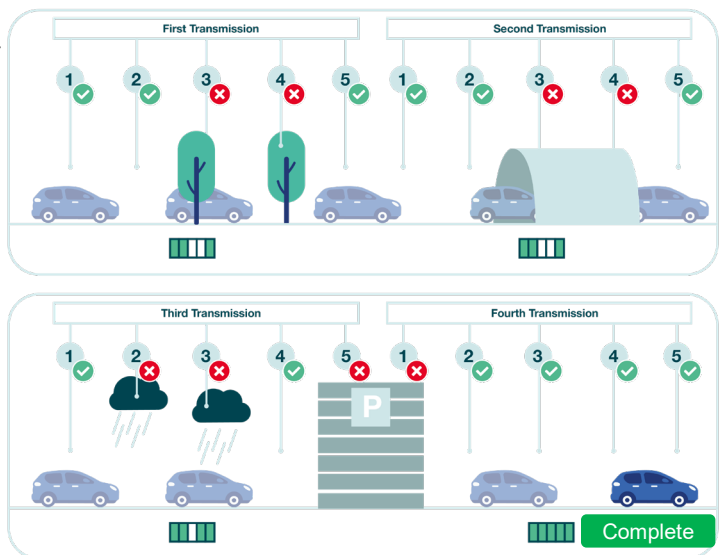


Carousel Transmission

Again, the file is sent in five segments of 20% each. However, after the fifth segment is transmitted, the file is re-sent. The operator will continuously send out the file to ensure that all cars receive all segments of the file.

Here, the third and fourth segments are blocked by the tree canopy and later by a tunnel. In the third transmission, the fourth segment is picked up but it isn't until the fourth transmission that the car finally receives the third segment to complete the file.

Carousel delivery has a higher probability of successful file distribution but it is unreliable and inefficient, in that it will likely require multiple transmission (potentially increasing delivery costs). With more and more vehicles, more transmissions are required to ensure that 100% of vehicles receive 100% of the file. The inefficiency increases. It can be a lengthy and costly proposition.



Smart FEC

Our solution solves for these issues. In this example, the file is again broken into five segments. However, all packets sent are unique FEC packets. It does not matter which segment of a given file is received. As long as five segments are received, the file can be successfully recreated! It is quicker, more reliable and cost effective too.

Be smart with Smart FEC.

