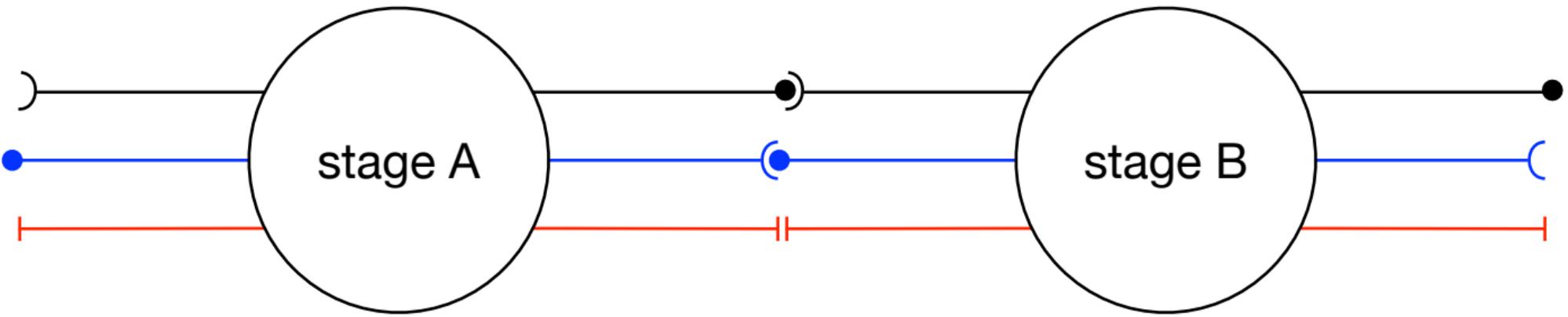


data flows downstream



demand flows upstream



errors are propagated both ways

