Erdős and Hajnal conjectured in 1966 that every graph of uncountable chromatic number contains a subgraph of infinite connectivity. We prove that every graph of uncountable chromatic number has a subgraph which has uncountable chromatic number and infinite edge-connectivity. We also prove that, if each orientation of a graph $G$ has a vertex of infinite outdegree, then $G$ contains an uncountable subgraph of infinite edge-connectivity.