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Let  $\mathcal{F}$  be a set of faulty nodes in the hypercube  $\mathcal{Q}_n$  and  $P$  be a set of pairs of healthy nodes. In our talk we will present necessary and sufficient conditions for the existence of a set of simple paths in  $\mathcal{Q}_n \setminus \mathcal{F}$  such that the set of pairs of endpoints of these paths coincide with  $P$  and each node of  $\mathcal{Q}_n \setminus \mathcal{F}$  is contained in exactly one of these paths. (Received December 26, 2006)