Data Structures for Emergency Planing

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Abstract. We present in this talk different techniques for quickly answer graph problems where some of the nodes may be turn off. Typical graph problems are such as connectivity or distances between pair of nodes but not only. Emergency planing for such problems is achieved by pre-processing the graphs and by virtually preventing all possible subsequent node removals. To obtain efficient data structures, the idea is to attach very little and localized information to nodes of the input graph so that queries can be solved using solely on these information. Contexts and solutions for several problems will be surveyed.