**1.Introduction**

PSN: packet switching node

SPF: shortest path first algorithm

Lightly loads: similar to a delay-based metric

Heavy loads: a capacity-based metric.

The delay metric produced shortest-delay paths only under conditions of light loading,

The revised metric involves giving up the guarantee of shortest-delay paths under light traffic conditions for the sake of vastly improved performance under heavy traffic conditions.

**2.Routing in the ARPANET**

Sing path routing: at any given moment, all packets destined for a particular destination PSN always use the same outgoing link.

2.1 Original Algorithm

.Each node maintained a table of its estimated shortest distance to all other nodes.