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Russell et al.

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(54) FRAME BASED DATA TRANSMISSION OVER SYNCHRONOUS DIGITAL HIERARCHY NETWORK

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(CA)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

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This patent is subject to a terminal dis-

claimer.

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Related U.S. Application Data

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(51) Int. Cl.⁷ H04L 12/56

401–403, 465

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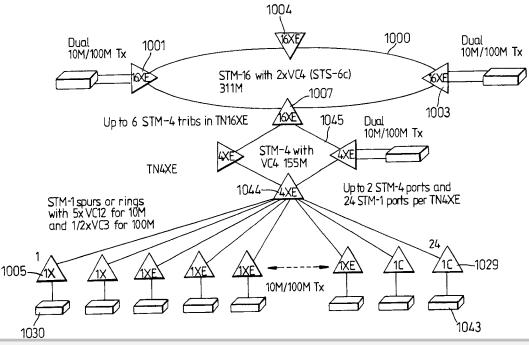
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(57) ABSTRACT

A frame based data communications network is interfaced to a synchronous digital hierarchy network via a plurality of frame based data port cards incorporated into a plurality of synchronous multiplexers. Each port card comprises a conventional frame based data port, a frame switch, a rate adapter means and a mapping means for mapping data frames into a plurality of SDH virtual containers. Frame based data is incorporated directly into a synchronous virtual container without encapsulation in an intermediate protocol. A number of topologies of a frame based data channel network are possible, overlaid on the underlying synchronous transport network, including an open loop topology, a ring mode topology, and a backhaul topology.

30 Claims, 11 Drawing Sheets





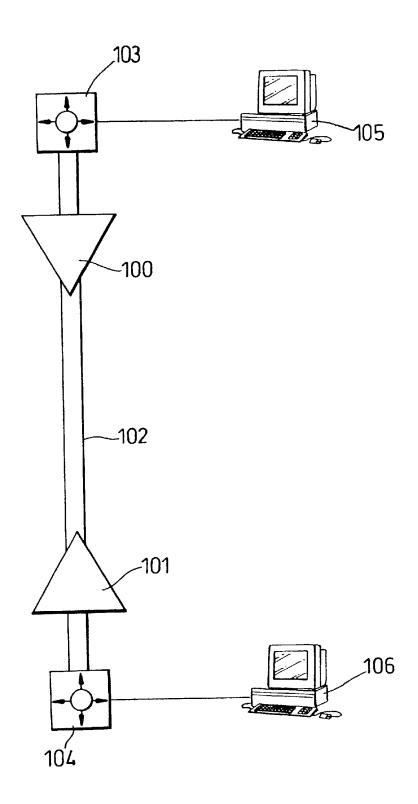


Fig. 1



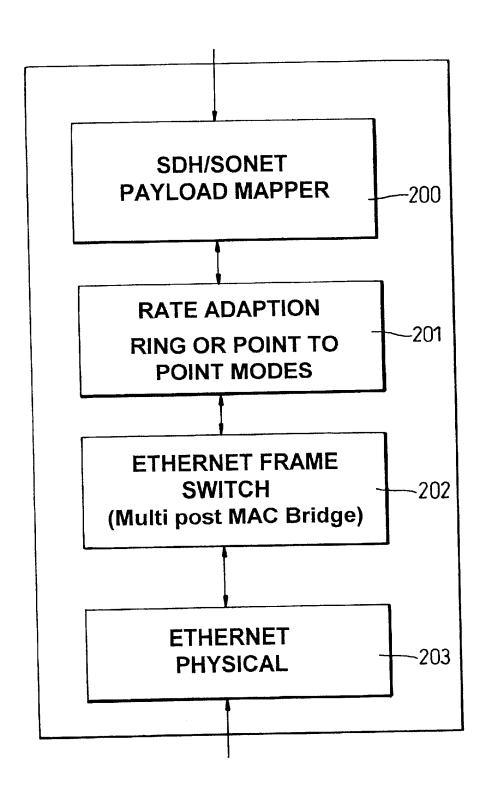


Fig. 2



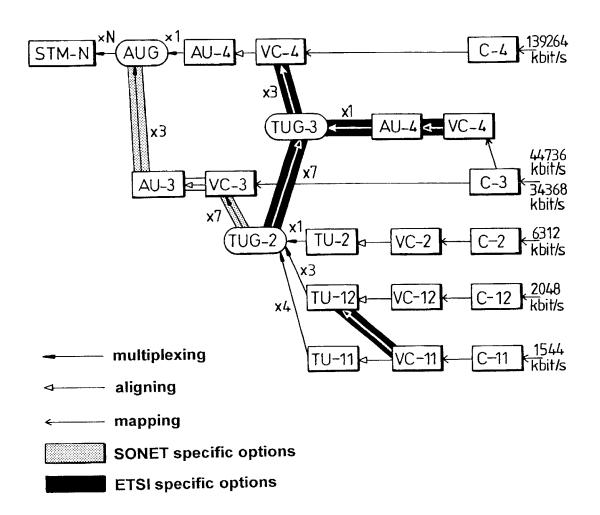
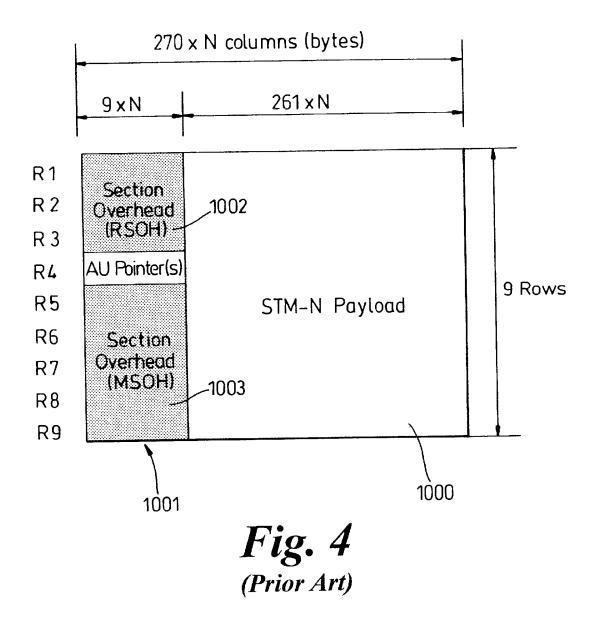


Fig. 3
(Prior Art)







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