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(54) **SOFTWARE DEFINED NETWORKING PIPE FOR NETWORK TRAFFIC INSPECTION**

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H04L 29/06	(2006.01)	

(52) **U.S. Cl.**
CPC *H04L 63/02* (2013.01); *H04L 63/0245* (2013.01)

(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

A software defined networking (SDN) computer network includes an SDN controller and an SDN switch. The SDN controller inserts flow rules in a flow table of the SDN switch to create an SDN pipe between a sender component and a security component. A broadcast function of the SDN switch to the ports that form the SDN pipe may be disabled. The SDN pipe allows outgoing packets sent by the sender component to be received by the security component. The security component inspects the outgoing packets for compliance with security policies and allows the outgoing packets to be forwarded to their destination when the outgoing packets pass inspection. The SDN controller may also insert a flow rule in the flow table of the SDN switch to bypass inspection of specified packets.
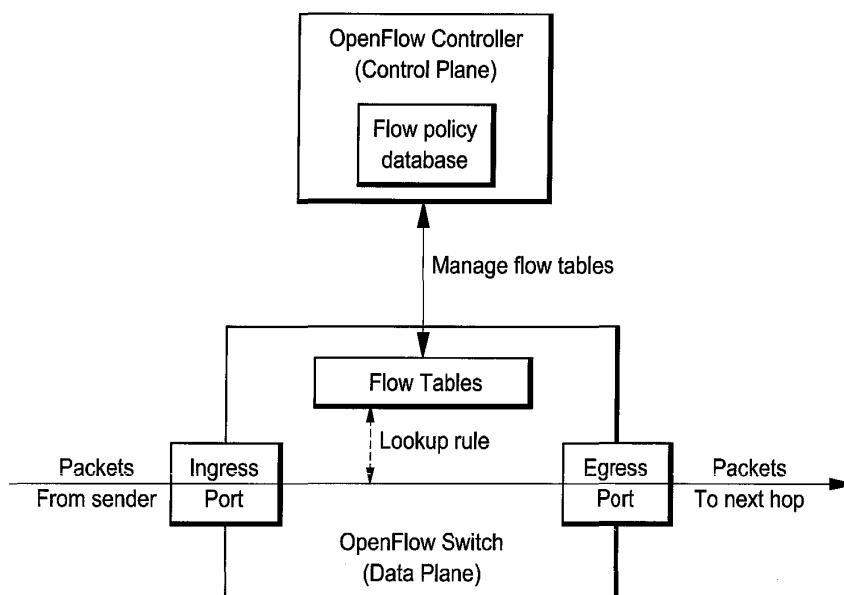
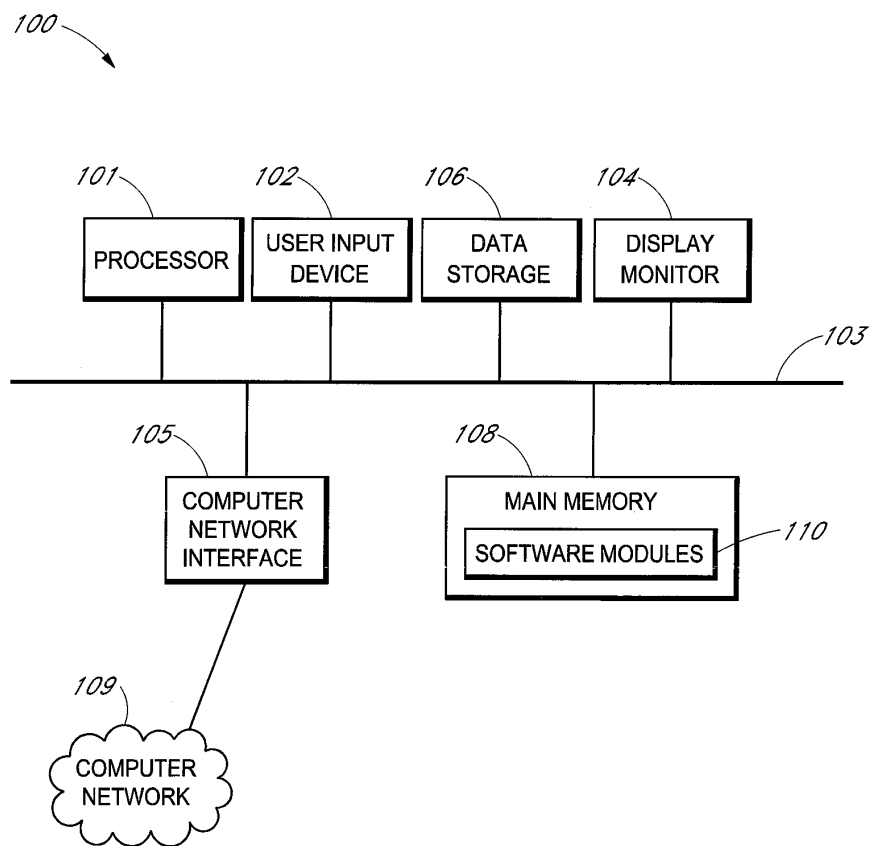**17 Claims, 8 Drawing Sheets**
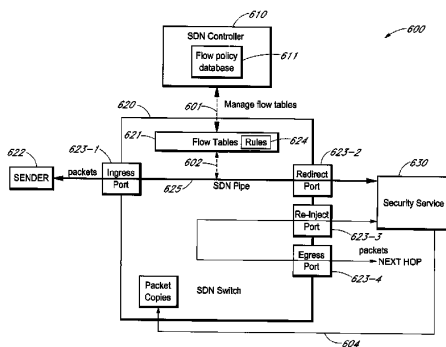
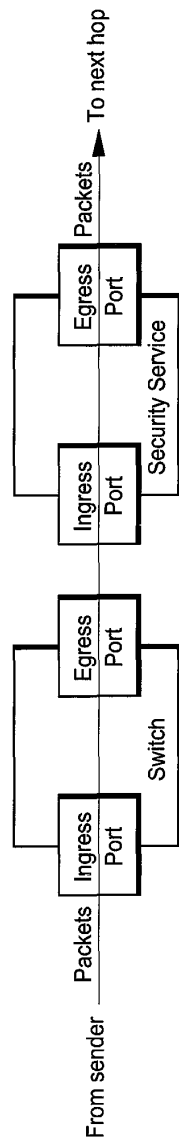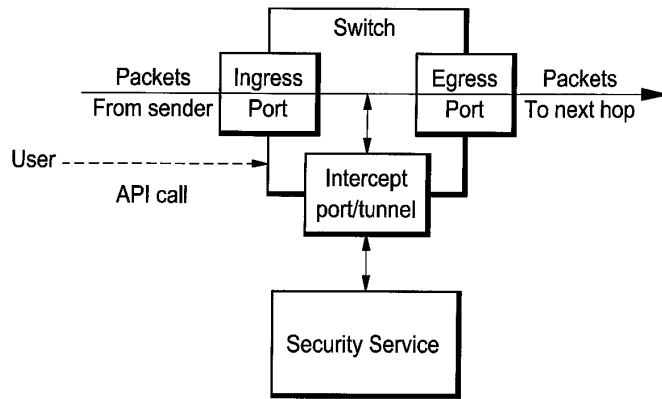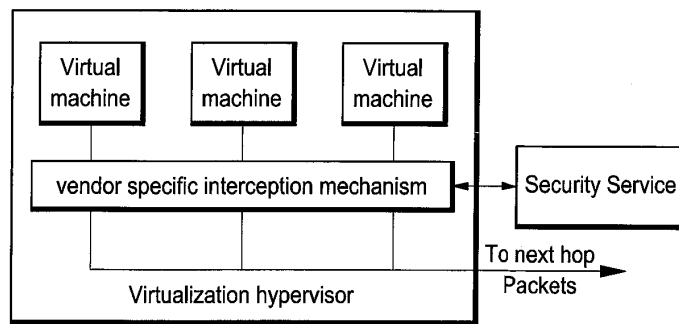*FIG. 1*
(PRIOR ART)

FIG. 2

FIG. 3

FIG. 4

FIG. 5

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