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United States Patent [19]

Schnurer et al.

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[54] **COMPUTER VIRUS TRAP**

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[73] Assignee: **Quantum Leap Innovations, Inc.**, Briarcliff Manor, N.Y.

[21] Appl. No.: **865,786**

[22] Filed: **May 30, 1997**

Related U.S. Application Data

[63] Continuation of Ser. No. 754,120, Nov. 20, 1996, abandoned, which is a continuation of Ser. No. 607,520, Feb. 27, 1996, abandoned, which is a continuation of Ser. No. 252,622, Jun. 1, 1994, abandoned.

[51] **Int. Cl.**[6] **G06F 9/455**; G06F 11/00

[52] **U.S. Cl.** **395/500**

[58] **Field of Search** 395/180, 183.14, 395/500; 371/16.21, 16.23

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Mark Hopkins, *The Transputer Handbook,* INMOS Ltd.

Mark Hopkins, *The Transputer Databook,* INMOS Ltd.

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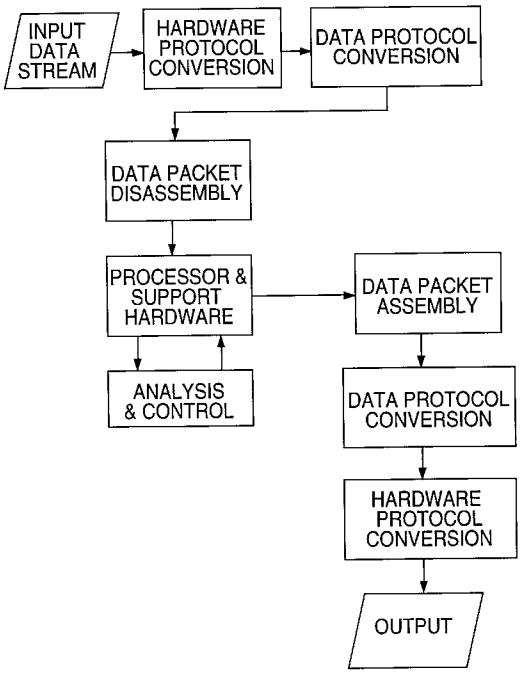
[57] **ABSTRACT**

A computer virus trapping device is described that detects and eliminates computer viruses before they can enter a computer system and wreck havoc on its files, peripherals, etc. The trapping device creates a virtual world that simulates the host computer system intended by the virus to infect. The environment is made as friendly as possible to fool a computer virus into thinking it is present on the host, its intended target system. Within this virtual world, the virus is encouraged to perform its intended activity. The invention is able to detect any disruptive behavior occurring within this simulated host computer system. It is further able to remove the virus from the data stream before it is delivered to the host and and/or take any action previously instructed by a user.

6 Claims, 8 Drawing Sheets



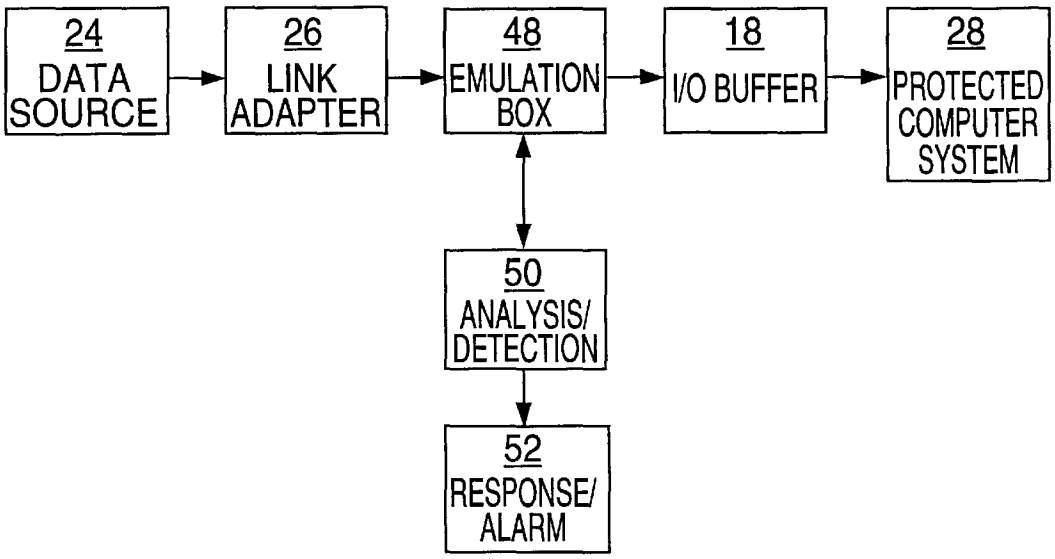


FIG. 1

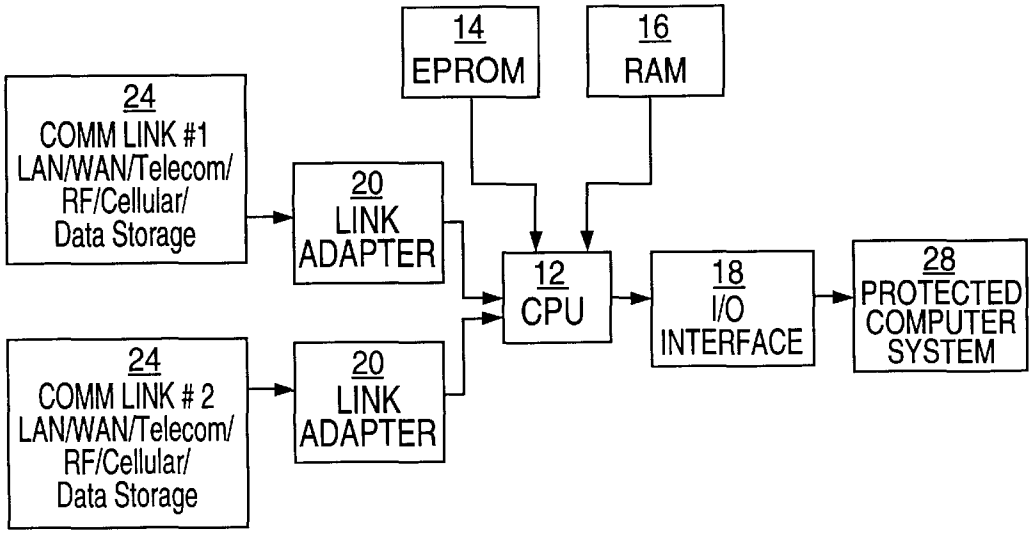


FIG. 2

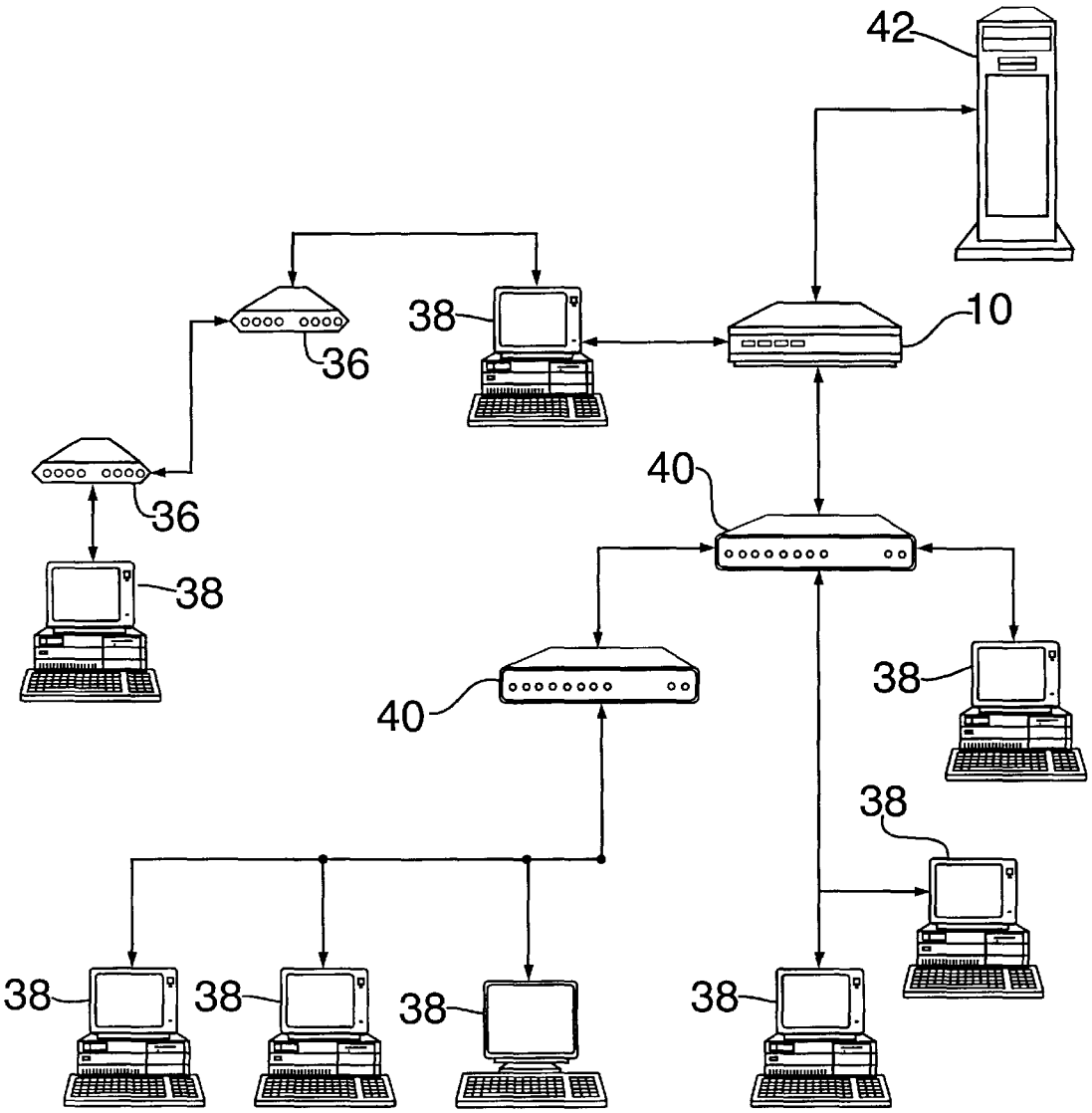


FIG. 3

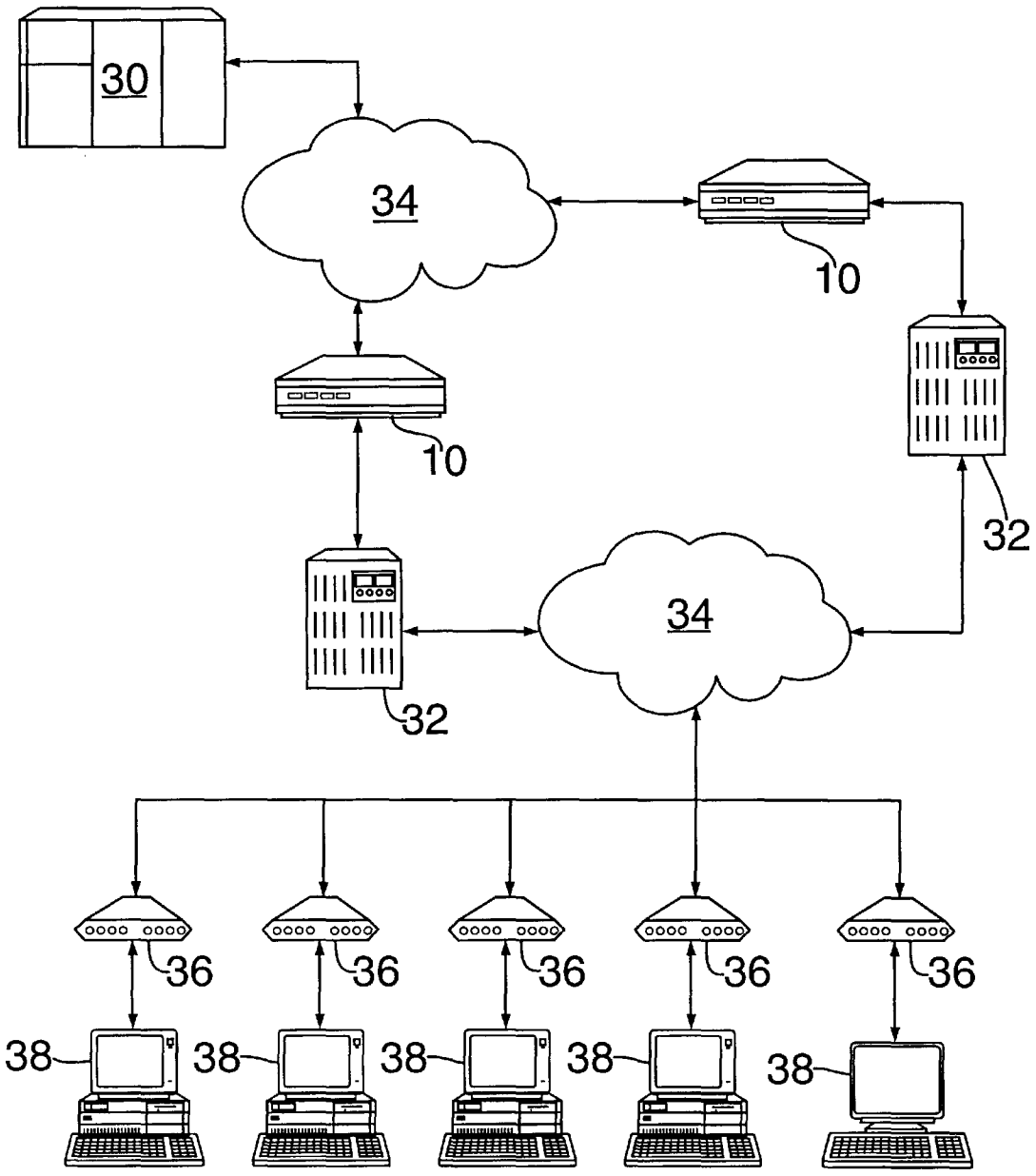


FIG. 4

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