

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent: 8,558,950 B1

Date of Issue: Oct. 15, 2013

Name of Patentee: John Christopher Harvey and James William Cuddihy

Title of Invention: SIGNAL PROCESSING APPARATUS AND METHODS

August 29, 2018

Mail Stop *Ex parte* REEXAM  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STREAMLINED *EX PARTE* REEXAMINATION REQUEST**

Dear Sir:

Reexamination under 35 U.S.C. §§ 302-307 and 37 C.F.R. § 1.510 is requested of United States Patent number 8,558,950 B1, which issued on Oct. 15, 2013, to John Christopher Harvey and James William Cuddihy. U.S. Patent 8,558,950 B1 is still enforceable.

**Identification of Claims for Which Reexamination Is Requested**

In accordance with 37 C.F.R. § 1.510, reexamination of claims 1, 5, and 8 of U.S. Patent 8,558,950 B1 is requested, in view of the following references:

Costantini *et al.*, U.S. Patent 4,454,577. (“Costantini”)

Metcalf *et al.*, “Ethernet: Distributed Packet Switching for Local Computer Networks”,  
Communications of the ACM, July 1976, Vol. 19, No. 7, pp. 395-404.  
 (“Metcalf”)

Form PTO-SB-08A is attached with the above references listed.

PMC Exhibit 2149

Statement Pointing Out Each Substantial New Question of Patentability

Costantini and Metcalfe were not of record in the file of U.S. Patent 8,558,950 B1. Costantini describes a system and apparatus for communication of instructions from a master computer to a slave computer, and a response by the slave computer to the master computer of test equipment measurement results. Metcalfe describes a system and apparatus for communication of information between computers in a network. The teachings of Costantini in view of Metcalfe could be considered to raise a substantial new question of patentability for claims 1, 5, and 8. Issued claims 1, 5, and 8 have a Nov. 3, 1981 priority date through the parent U.S. Patent 4,694,490 of the instant continuation-in-part U.S. Patent 8,558,950 B1.

Detailed Explanation Under 37 C.F.R. § 1.510(b)

1. Claim 1 of U.S. Patent 8,558,950 B1 may be unpatentable under 35 U.S.C § 103(a) as being obvious over Costantini in view of Metcalfe, as shown by the following claim chart:

U.S. 8,558,950 B1	Costantini in view of Metcalfe
<p>1. A method of providing statistics on at least one of availability, use and usage of signals at a user station, said user station having a computer for processing and outputting information in response to signals, said method comprising the steps of:</p>	<p>Fig. 1 of Costantini shows a slave computer (SC or SL) comprising a CPU, memory, and I/O. The slave computer receives signals from the master computer (MC), which also comprises a CPU, memory, and I/O, using a wired communication pathway including lines (26, 41), cable (40), link 10, and buffer 14.</p> <p>Costantini states, “A link (10) exchanges data between a master (MC) and slave (SC) computer. Each computer has control lines (26A, 42) and incompatible information lines (26B, 26C, CA1-15, CX1-21). The master computer (MC) includes a master interface (28) connected to the information and control lines (26) of the master computer (MC). The master interface (28) has separate intercommunication lines (LA/B) and intermediate (34) lines. This master interface (28) is able to provide an intermediate signal on its intermediate lines (34) in response to signals provided by the master computer (MC) on its control lines (26A). The link (10) includes a computing subsystem (30) and a slave interface (38). The computing subsystem (30) is connected to the intercommunication (LA/B) and intermediate (34) lines of the master interface (28). The computing subsystem (30) has command lines (36) for providing thereon a command signal in response to the intermediate signal. The slave interface (38) is connected to the intercommunication lines (LA/B) of the master interface (28), to the command lines (36) of the computing subsystem (30) and to the control lines (42) of the slave computer (SC). The slave interface (38) can provide a signal to the control lines (42) of the slave computer (SC) in response to the command signal.” (Costantini,</p>

	Abstract.)
receiving a signal from a remote source;	<p>Fig. 3 of Costantini shows in step ST3, “transmit program from master”, and in step ST4, “store instructions from master”. Accordingly, the slave computer receives a program from the master computer.</p>
passing an instruction included in said signal to said computer, said computer performing a function in response to said instruction;	<p>Fig. 3 of Costantini shows in step ST9, “slave runs instructions and relay results”. Accordingly, the slave computer passes the received instructions from step ST4 and runs the instructions to control meters and sources 22 (shown in Fig. 1) to exercise a test unit 24 (shown in Fig. 1).</p> <p>Costantini states, “The instructions thus conveyed are coupled through buffer 14 (FIG. 1) to cause slave computer SL to operate the appropriate instruments and stimulating devices in rack 22 (FIG. 1), perform the requested tests and return on lines 23 the requested measurements.” (Costantini, 5:7-12.)</p>
selecting a portion of said signal;	<p>Costantini states, “The foregoing system can perform numerous functions. For example, the master computer can transmit a program through the link to the slave computer to reprogram it. Also, the master computer can be used for interactive debugging. For example, the master computer can send instructions to the slave causing it to execute one of its programming steps and then pause. The master computer can then read and display various registers or memory cells from the slave computer. In addition, the master computer can change the contents of the slave computer memory at a specified address by transmitting a change order to the slave.</p> <p>“Moreover, for embodiments where the slave computer controls test instruments and stimulative devices, the master computer can instruct the slave to operate its test instruments and stimulative</p>

	<p>devices in a given manner. The measurements obtained by the instruments can be relayed back to the master computer for display.” (Costantini, 2:8-25.)</p> <p>In Fig. 2 of Metcalfe, a communication packet is shown. The packet based communication system of Metcalfe may be used in place of, or augmented into, the wired communication pathway of Costantini. As such, the destination and source addresses are required in Metcalfe’s packet based communication system. For Costantini’s slave computer to respond to the master computer, the slave computer would need to locally store the source address of the master computer, so that the destination address may be filled with the master computer’s address when the slave computer responds to the master computer’s requests.</p>
<p>selecting a local datum at said user station;</p>	<p>Fig. 3 of Costantini shows in step ST10, “relay results from slave to master”. Accordingly, the slave computer will send the measurement results to the master computer. The measurement results may be an example of the claimed “local datum”.</p>
<p>creating a record including said selected portion and said selected local datum; and</p>	<p>In Fig. 2 of Metcalfe, a communication packet is shown. The packet based communication system of Metcalfe may be used in place of, or augmented into, the wired communication pathway of Costantini. As such, the destination and source addresses are required in Metcalfe’s packet based communication system. For Costantini’s slave computer to respond to the master computer, the slave computer would need to locally store the source address of the master computer, so that the destination address may be filled with the master computer’s address when the slave computer responds to the master computer’s requests. The packet would comprise the destination address of the master computer stored when the master computer transmitted the instructions, as in step ST3 of Fig. 3 in Costantini. Also, the measurement results would be at least part of the data in Fig. 2 of</p>

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