

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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SSK  
4-26-00

In re PATENT APPLICATION of

ELLIS, Frampton E.

Appln. No.: 09/320,660

Filed: May 27, 1999

FOR: GLOBAL NETWORK COMPUTERS



Group Art Unit: 2757

Examiner: D. Dinh

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\* \* \* \* \*

April 14, 2000

AMENDMENT

Hon. Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

In response to the Official Action of October 14, 1999, kindly enter the following amendments and remarks, the time for responding having been extended through April 14, 2000 by submission of a petition and the requisite fee.

IN THE TITLE OF THE INVENTION

Kindly replace the Title of the Invention with --Personal Computer Microprocessor  
Firewalls for Internet Distributed Processing--.

IN THE CLAIMS:

Kindly cancel claims 1-26 and 30-31 without prejudice and amend the claims as follows:

AL 4 27. (Amended) A system for a network of computers, [including personal

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computers,] comprising:

at least two [said] personal computers;

[means for] at least one of said at least two personal computers, when directed by [its] a personal user, [to function] functioning temporarily as a master personal computer to initiate and control [the] execution of a computer processing operation shared with at least one other of said at least two personal computers in said network, said shared computer processing operation including at least one of parallel processing and multitasking processing;

[means for] at least one other of said at least two personal computers, when idled by [its] another personal user, [to be made available to function] functioning temporarily as at least one slave personal computer to participate in the execution of [a] said shared computer processing operation controlled by said master personal computer; [and]

[means for] any of said at least two personal computers [to alternate] alternating as directed by said personal users between functioning as a master and functioning as a slave in a number of said shared computer processing operations;

a firewall, at least for said temporary slave personal computer, allowing access, at least temporarily, to a microprocessor of said temporary slave personal computer by said network during said shared computer processing operation; and

said firewall denying access by said network, during said shared computer processing operation, to a master controller mechanism of said temporary slave personal computer functioning to control said at least one microprocessor of said temporary slave personal computer when said temporary slave personal computer is not idled by said another personal user.

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28. (Amended) The system of claim ~~27~~<sup>4</sup>, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations [said system imposes no limit to the number of said personal computers] is limited only by a number of said personal computers that are connected to the network.

6  
29. (Amended) The system of claim ~~28~~, wherein [said system includes] at least one of [1024] said personal computers is substantially contained in a respective single microchip.

8  
32. (Amended) The system of claim ~~27~~<sup>4</sup>, wherein said system is scalar in that a number of said personal computers participating as masters in multiple, separate, non-related shared computer processing operations [said system imposes no limit to the number of said personal computers participating in a single shared computer processing operation] is limited only by a number of said personal computers that are connected to the network.

9  
33. (Amended) The system of claim ~~27~~<sup>4</sup>, wherein at least one of said [system] [includes at least 256 said] personal computers is substantially contained in a single respective microchip having more than one microprocessor.

11  
34. (Amended) The system of claim ~~27~~<sup>4</sup>, wherein said network is connected to

[the] an Internet, which is utilized to provide shared computer processing services [and its equivalents and successors, so that said personal computers include at least a million personal computers].

<sup>12</sup> ~~35~~. The system of claim <sup>4</sup> ~~27~~, wherein said [shared computer processing is parallel processing] other personal computer of said at least two personal computers defaults automatically to functioning as a slave when idled by said another personal user.

<sup>13</sup> ~~36~~. (Amended) The system of claim <sup>4</sup> ~~27~~, wherein said network is connected to [the] a World Wide Web, which is utilized to provide said shared computer processing services [and its successors].

<sup>15</sup> ~~37~~. (Amended) The system [on] of claim <sup>4</sup> ~~27~~, [wherein a means for] further comprising a provider of network services, said network services including [browsing and] broadcast functions[, as well as] and shared computer processing services [such as parallel processing, are provided to said personal computers within said network].

<sup>14</sup> ~~38~~. (Amended) The system of claim [27] <sup>13</sup> ~~36~~, wherein said network includes at least one network server being configured to provide network services to said at least two personal computers that participate[s] in [said] shared computer processing.

<sup>17</sup> ~~39~~. (Amended) The system of claim <sup>4</sup> ~~27~~, wherein said personal computers include

a transponder [means] so that, when functioning as a master, a personal computer of said at least two personal computers can determine [the] a closest available one of a plurality of slave personal computers.

<sup>16</sup>  
~~40.~~ (Amended) The system of claim [27] <sup>17</sup>~~39~~, wherein a selection of said closest available slave personal computer is limited to one of the slave personal computers being compatible with [said] a master personal computer in order to simplify [execute] execution of said shared computer processing operation.

A2 <sup>18</sup>  
~~41.~~ (Amended) The system of claim <sup>4</sup>~~20~~, wherein said at least two personal computers [having] include at least one microprocessor and are configured to [communicating] communicate with said network through a connection [means] having a minimum speed of data transmission that is [at least] greater than a peak data processing speed of said [microprocessor] personal computers.

<sup>42</sup>  
~~42.~~ (Amended) A system architecture for computers, [including personal computers,] to function within a network of computers, said architecture comprising:  
at least two personal computers, each [with] having at least two microprocessors and [having] a connection [means with] to a network of personal computers;  
[said architecture for said computers including ] a firewall [means] for at least some of said personal computers to limit access by said network to only a portion of [the] at least one of hardware, software[, ] and firmware[, and other components] of each of said at least

some of said personal computers;

each said firewall [means will] arranged to [not permit] deny access by said network to at least a [one] first of said at least two [microprocessor] microprocessors of said at least some of said personal computers [having a means to function], said first of said microprocessors arranged to function as a master microprocessor to initiate and control [the] execution of a computer processing operation shared with [said] at least one other microprocessor of said personal computers [having a means to function] arranged to function as a slave microprocessor and connected to said network; and

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each said firewall [means permitting] arranged to permit at least temporary access by said network to [said slave microprocessor] at least a second of said at least two microprocessors of said at least some of said personal computers, said second of said microprocessors arranged to function as a slave microprocessor during a shared computer processing operation, said shared computer processing operation including at least one of parallel and multitasking processing.

43  
43. (Amended) The system architecture of claim 42, wherein said network is connected to a World Wide Web, which is utilized to provide shared computer processing services [is a personal computer].

44  
44. (Amended) The system architecture of claim [43] 42, wherein said [personal computer is a microchip] firewall denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said

personal computers.

45. (Amended) The system architecture of claim 42, wherein said [computer] system [have] has a control [means] mechanism by which to permit and to deny access to said personal computer by said network for shared computer processing.

46. (Amended) The system architecture of claim 43, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations [said system imposes no limit to the number of said personal computers] is limited only by a number of said personal computers that are connected to the network.

47. (Amended) The system architecture of claim 46, wherein [said system includes] at least one of [256] said personal computers is substantially contained in a respective single microchip.

48. (Amended) The system architecture of claim 43, wherein said network is connected to [the] an Internet, which is utilized to provide said shared computer processing services [and its equivalents and successors, so that said personal computers include at least a million personal computers].

49. (Amended) The system architecture claim 43, wherein said system is scalar in

that a number of said personal computers participating in single shared computer processing operation [said system imposes no limit to the number of said personal computers participating in a single shared computer processing operation] is limited only by a number of said personal computers that are connected to the network.

AB 50. (Amended) The system architecture of claim 49, wherein [some] at least one of said [system at least includes at least 256 said] personal computers is substantially contained in a single respective microchip having more than one microprocessor.

51. (Amended) The system architecture of claim [43] 47, wherein said personal computers [having] have at least one microprocessor and are configured to [communicating] communicate with said network through a connection [means] having a minimum speed of data transmission that is [at least] greater than a peak data processing speed of said at least one [microprocessor] personal computer.

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Kindly add the following new claims:

AB 19 --52 (New) The system of claim <sup>4</sup>27, wherein said at least two personal computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

53. (New) The system architecture of claim 42, wherein said at least two personal



computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

<sup>20</sup>  
~~54.~~ (New) The system of claim <sup>4</sup>27, wherein said firewall denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said personal computers.

<sup>21</sup> ~~55.~~ (New) The system architecture of claim <sup>20</sup>54, wherein said non-volatile, writable memory includes a flash bios.

<sup>56.</sup> (New) The system architecture of claim 44, wherein said non-volatile, writable memory includes a flash bios.

<sup>57.</sup> (New) The system of claim <sup>20</sup>54, wherein said non-volatile, writable memory includes a hard disk.

<sup>58.</sup> (New) The system architecture of claim 44, wherein said non-volatile, writable memory includes a hard disk.

<sup>7</sup> ~~59.~~ (New) The system of claim <sup>6</sup>29, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

<sup>10</sup>  
~~60~~. (New) The system of claim <sup>9</sup>~~33~~, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

<sup>54</sup>  
~~61~~. (New) The system architecture of claim 47, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

<sup>55</sup>  
~~62~~. (New) The system architecture of claim 50, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

<sup>22</sup>  
~~63~~. (New) The system of claim <sup>4</sup>~~27~~, wherein when said temporary slave personal computer is used by said another personal user, said use thereby ending the temporary slave functioning of said personal computer, said master controller mechanism of the former said temporary slave personal computer is used by said another personal user to control at least one microprocessor of a different computer in said network during a different shared computer processing operation.

<sup>24</sup>  
~~64~~. (New) The system of claim <sup>4</sup>~~27~~, wherein said master controller mechanism is located remotely from said temporary slave personal computer.

<sup>23</sup>  
~~65~~. (New) The system of claim <sup>22</sup>~~63~~, wherein said master controller mechanism is wirelessly connected to said temporary slave personal computer.

<sup>52</sup>  
~~66~~. (New) The system architecture of claim 42, wherein at least some of said personal computers include a digital signal processor.

<sup>60</sup>  
~~67~~. (New) A system for a network of computers, comprising:  
at least two personal computers;  
means for at least one of said at least two personal computers, when directed by a personal user, to function temporarily as a master personal computer to initiate and control execution of a computer processing operation shared with at least one other of said at least two personal computers in said network, said shared computer processing operation including at least one of parallel processing and multitasking processing;

means for at least one other of said at least two personal computers, when idled by another personal user, to function temporarily as at least one slave personal computer to participate in the execution of said shared computer processing operation controlled by said master personal computer;

means for any of said at least two personal computers to alternate as directed by said personal users between functioning as a master and functioning as a slave in a number of said shared computer processing operations;

firewall means, at least for said temporary slave personal computer, for allowing

access, at least temporarily, to a microprocessor of said temporary slave personal computer by said network during said shared computer processing operation; and

said firewall means denying access by said network, during said shared computer processing operation, to a master controller mechanism of said temporary slave personal computer functioning to control said at least one microprocessor of said temporary slave personal computer when said temporary slave personal computer is not idled by said another personal user.

AS 68. (New) The system of claim <sup>60</sup>67, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations is limited only by a number of said personal computers that are connected to the network.

69. (New) The system of claim 68, wherein at least one of said personal computers is substantially contained in a respective single microchip.

<sup>80</sup>70. (New) The system of claim <sup>60</sup>67, wherein said system is scalar in that a number of said personal computers participating as masters in multiple, separate, non-related shared computer processing operations is limited only by a number of said personal computers that are connected to the network.

<sup>60</sup>71. (New) The system of claim <sup>60</sup>67, wherein at least one of said personal

computers is substantially contained in a single respective microchip having more than one microprocessor.

<sup>81</sup>  
~~72~~ (New) The system of claim <sup>60</sup>~~67~~, wherein said network is connected to an Internet, which is utilized to provide shared computer processing services.

73. (New) The system of claim <sup>60</sup>~~67~~, wherein said other personal computer of said at least two personal computers defaults automatically to functioning as a slave when idled by said another personal user.

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74. (New) The system of claim <sup>60</sup>~~67~~, wherein said network is connected to a World Wide Web, which is utilized to provide said shared computer processing services.

75. (New) The system of claim <sup>60</sup>~~67~~, further comprising means for providing network services, said network services including broadcast functions and shared computer processing services.

76. (New) The system of claim 74, wherein said network includes at least one network server being configured to provide network services to said at least two personal computers that participate in shared computer processing.

77. (New) The system of claim <sup>60</sup>~~67~~, wherein said personal computers include a

transponder so that, when functioning as a master, a personal computer of said at least two personal computers can determine a closest available one of a plurality of slave personal computers.

78. (New) The system of claim 77, wherein a selection of said closest available slave personal computer is limited to one of the slave personal computers being compatible with a master personal computer in order to simplify execution of said shared computer processing operation.

79. (New) The system of claim <sup>68</sup>67, wherein said at least two personal computers include at least one microprocessor and are configured to communicate with said network through a connection means having a minimum speed of data transmission that is at least greater than a peak data processing speed of said microprocessor personal computers.

80. (New) A system architecture for computers, to function within a network of computers, said architecture comprising:

at least two personal computers, each having at least two microprocessors and a connection to a network of personal computers;

firewall means for at least some of said personal computers to limit access by said network to only a portion of at least one of hardware, software and firmware of each of said at least some of said personal computers;

each said firewall means arranged to deny access by said network to at least a first of

said at least two microprocessors of said at least some of said personal computers, said first of said microprocessors arranged to function as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor of said personal computers arranged to function as a slave microprocessor and connected to said network; and

each said firewall means arranged to permit at least temporary access by said network to at least a second of said at least two microprocessors of said at least some of said personal computers, said second of said microprocessors arranged to function as a slave microprocessor during a shared computer processing operation, said shared computer processing operation including at least one of parallel and multitasking processing.

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81. (New) The system architecture of claim 80, wherein said network is connected to a World Wide Web, which is utilized to provide shared computer processing services.

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82. (New) The system architecture of claim 80, wherein said firewall means denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said personal computers.

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83. (New) The system architecture of claim 80, wherein said system further comprises control means for permitting and denying access to said personal computer by said network for shared computer processing.

<sup>29</sup>  
~~84~~. (New) The system architecture of claim ~~81~~<sup>28</sup>, wherein said system is scalar in that a number of said personal computers participating in multiple, separate, non-related shared computer processing operations is limited only by a number of said personal computers that are connected to the network.

<sup>30</sup>  
~~85~~. (New) The system architecture of claim ~~84~~<sup>29</sup>, wherein at least one of said personal computers is substantially contained in a respective single microchip.

<sup>33</sup>  
~~86~~. (New) The system architecture of claim ~~81~~<sup>28</sup>, wherein said network is connected to an Internet, which is utilized to provide said shared computer processing services.

<sup>34</sup>  
~~87~~. (New) The system architecture of claim ~~81~~<sup>28</sup>, wherein said system is scalar in that a number of said personal computers participating in single shared computer processing operation is limited only by a number of said personal computers that are connected to the network.

<sup>35</sup>  
~~88~~. (New) The system architecture of claim ~~87~~<sup>34</sup>, wherein at least one of said personal computers is substantially contained in a single respective microchip having more than one microprocessor.



<sup>31</sup>  
~~30~~. (New) The system architecture of claim <sup>30</sup>~~85~~, wherein said personal computers have at least one microprocessor and are configured to communicate with said network through a connection having a minimum speed of data transmission that is greater than a peak data processing speed of said at least one personal computer.

<sup>61</sup>  
~~90~~. (New) The system of claim <sup>60</sup>~~67~~, wherein said at least two personal computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

13 <sup>41</sup>  
~~91~~. (New) The system architecture of claim <sup>21</sup>~~80~~, wherein said at least two personal computers are configured to communicate with said network through a connection including a direct connection to said at least two personal computers by an optical fiber connection.

<sup>63</sup>  
~~92~~. (New) The system of claim <sup>60</sup>~~67~~, wherein said firewall means denies access by said network during said shared processing operation to at least part of a non-volatile, writable memory of at least one of said personal computers.

<sup>38</sup>  
~~93~~. (New) The system architecture of claim <sup>37</sup>~~82~~, wherein said non-volatile, writable memory includes a flash bios.

<sup>64</sup>  
~~94~~. (New) The system of claim <sup>43</sup>~~92~~, wherein said non-volatile, writable memory includes a flash bios.

<sup>39</sup>  
~~95~~. (New) The system architecture of claim ~~82~~<sup>37</sup>, wherein said non-volatile, writable memory includes a hard disk.

<sup>65</sup>  
~~96~~. (New) The system architecture of claim ~~92~~<sup>63</sup>, wherein said non-volatile, writable memory includes a hard disk.

<sup>70</sup>  
~~97~~. (New) The system of claim 69, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

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<sup>72</sup>  
~~98~~. (New) The system of claim ~~71~~<sup>71</sup>, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

<sup>32</sup>  
~~99~~. (New) The system of claim ~~85~~<sup>30</sup>, wherein said at least one of said personal computers substantially contained on said respective single microchip has a direct optical fiber connection with said network.

<sup>36</sup>  
~~100~~. (New) The system of claim ~~88~~<sup>35</sup>, wherein said at least one personal computer substantially contained on said respective single microchip personal computers having more than one microprocessor has a direct optical fiber connection with said network.

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<sup>82</sup>  
~~101~~. (New) The system of claim <sup>60</sup>~~67~~, wherein when said temporary slave personal computer is used by said another personal user, said use thereby ending the temporary slave functioning of said personal computer, said master controller mechanism of the former temporary slave personal computer is used by said another personal user to control at least one microprocessor of a different computer in said network during a different shared computer processing operation.

<sup>66</sup>  
~~102~~. (New) The system of claim <sup>60</sup>~~67~~, wherein said master controller mechanism is located remotely from said temporary slave personal computer.

<sup>67</sup>  
~~103~~. (New) The system of claim <sup>66</sup>~~102~~, wherein said master controller mechanism is wirelessly connected to said temporary slave personal computer.

<sup>62</sup>  
~~104~~. (New) The system of claim <sup>61</sup>~~90~~, wherein at least some of said personal computers include a digital signal processor.

<sup>25</sup>  
~~105~~. (New) The system of claim <sup>4</sup>~~27~~, wherein said master controller mechanism is not a general purpose microprocessor capable of processing in said shared computer processing operation.

<sup>83</sup>  
~~106~~. (New) The system of claim <sup>60</sup>~~67~~, wherein said master controller mechanism is

<sup>67</sup> A

not a general purpose microprocessor capable of processing in said shared computer processing operation.

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~~107~~. (New) A system architecture for computers, including personal computers, to function within a network of computers, comprising:

at least one of said computers including at least two microprocessors having a connection with said network of computers;

a firewall for said personal computers to limit access by said network to only a portion of hardware, software, firmware, and other components of said personal computers, wherein:

said firewall denies access by said network to at least a one of said microprocessors, which includes means for functioning as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor, including means for functioning as a slave microprocessor, and

said firewall permitting access by said network to said slave microprocessor.

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~~108~~. (New) A system for a network of computers, comprising:

at least two personal computers;

means for providing network services including shared computer processing including parallel processing, to be provided to said at least two personal computers within said network;

means for at least one of said at least two personal computers, when idled by a personal user, to be made available temporarily to provide said shared computer processing to said network;

a monitor, constructed and arranged to monitor on a net basis, a provision of said network services to each of said at least two personal computers or to said personal user;

means for maintaining a standard cost basis for a provision of said network services to each of said at least two personal computers or to said personal user;

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means for at least one of said at least two personal computers, when directed by a corresponding personal user, to function temporarily as a master personal computer to initiate and control execution of a computer processing operation shared with at least one other of said at least two personal computers in said network;

means for said at least one other of said at least two personal computers, when idled by a corresponding personal user, to be made available to function temporarily as at least one slave personal computer to participate in an execution of a shared computer processing operation controlled by said master personal computer; and

means for said at least two personal computers to alternate as directed between functioning as a master and functioning as a slave in said shared computer processing operations;

at least one of said computers including at least two microprocessors and having a connection with said network of computers;

a firewall for said at least two personal computers to limit access by said network to only a portion of hardware, software, firmware, and other components of said at least two personal computers, wherein:

said firewall denying access by said network to at least one of said microprocessors, which include means for functioning as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor, including means for functioning as a slave microprocessor, and

said firewall permitting access by said network to said slave microprocessor.

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109. (New) A system for a network of computers, comprising:

at least two personal computers;

means for at least one of said at least two personal computers, when directed by a corresponding personal user, to function temporarily as a master personal computer to initiate and control execution of a computer processing operation shared with at least one other of said at least two personal computers in said network;

means for said at least one other of said at least two personal computers, when idled by a corresponding personal user, to be made available to function temporarily as at least one slave personal computer to participate in an execution of a shared computer processing operation controlled by said master personal computer;

means for said at least two personal computers to alternate as directed between functioning as a master and functioning as a slave in said shared computer processing operations;

a firewall for said at least two personal computers to limit access by said network to only a portion of hardware, software, firmware, and other components of said at least two personal computers, wherein:

A3  
at least one of said personal computers includes at least two microprocessors and has a connection with said network of computers,

said firewall denies access by said network to at least one of said microprocessors, which includes means for functioning as a master microprocessor to initiate and control execution of a computer processing operation shared with at least one other microprocessor, including means for functioning as a slave microprocessor, and

said firewall permits access by said network to said slave microprocessor.

24  
110. (New) The system of claim 27, wherein at least one of said at least two personal computers is a special purpose appliance device.

59  
111. (New) The system architecture of claim 42, wherein at least one of said at least two personal computers is a special purpose appliance device.--

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REMARKS

Reconsideration and allowance in view of the foregoing amendments and the

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following remarks are respectfully requested.

Claims 27-29 and 32-109 are pending, claims 27-29 and 32-51 having been amended, claims 52-111 having been added, and claims 1-26 and 30-31 having been canceled without prejudice.

Applicant wishes to thank the Examiner for agreeing that claims 42-51 contain allowable subject matter. Applicant has amended claims 42-51; however Applicant submits that the amendments do not affect the allowability of the claims.

The Examiner provisionally rejected claims 1-51 under the judicially created doctrine of double patenting over claims of co-pending U.S. Patent Application No. 08/980,058. Because claims 1-26 and 30-31 have been canceled without prejudice, the rejection is moot with respect to these claims. Because the co-pending claims of U.S. Patent Application 08/980,058 may change during prosecution, Applicant will consider the filing of a terminal disclaimer when the present application is otherwise in condition for allowance.

The Examiner rejected claims 1-9, 11-13, 14-19 and 23-26 under 35 U.S.C. §102(a) as allegedly being anticipated by "A new major SETI project based on Project Serendip data and 100,000 personal computers", by Sullivan et al. ("Seti@home"). Applicant canceled the above mentioned claims without prejudice rendering the rejection moot. Therefore, Applicant requests that the rejection be withdrawn.

The Examiner rejected claims 10, 20-22 and 27-41 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Seti@home. Claims 10 and 20-22 having been canceled without prejudice, Applicant submits that the rejection is moot with regard to these claims. Applicant traverses the rejection with respect to claims 27-41.

Seti@home is a project by which a PC user could loan his or her PC to be used to process radio signals received from space. A home computer's CPU cycles are borrowed by an automatic program for the processing of the radio signals. The program that runs on each client computer looks and behaves like a screen saver. It runs only when the machine is idle, at which time the computer's CPU is borrowed to process the radio signals.

The Examiner appears to have rejected claims 27-41 because of a belief that UNIX and NT servers can be run on personal computers and can be made to function temporarily as a master personal computer or as a slave personal computer, as similarly recited in claims 27-41. However, a UNIX or an NT server functions as a server, not as a master personal computer or as a slave personal computer, which require applications not found in UNIX or NT operating systems. Therefore, Applicant submits that neither Seti@home nor a UNIX or an NT server running on personal computers discloses, teaches or suggests:

at least one of at least two personal computers, when directed by a personal user, functioning temporarily as a master personal computer to initiate and control execution of a computer processing shared operation with at least one other of the at least two personal computers in a network, the shared processing operation including one of parallel processing and multi-tasking processing;

or

at least one other of the at least two personal computers, when idled by the personal user, functioning temporarily as at least one slave personal computer to participate in the execution of a shared computer processing



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operation controlled by the master personal computer.

Furthermore, Applicant wishes to remind the Examiner of the standard for a § 103 rejection, e.g., as set forth in the MPEP.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

*MPEP 706.02(j)*, emphasis added.

The Federal Circuit has recently reiterated (*In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998)) that even in a situation where each element of the claim was found among the cited references, the PTO failed to show a *prima facie* case of obviousness where there was no showing by the PTO of a motivation to combine the references. Without motivation to combine found in the references, the PTO must have used the claims as a blue print for combining the references, which is impermissible hindsight. The Court in *In re Rouffet* stated that

When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references. See *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). Therefore, “[w]hen determining the patentability of a claimed invention which combines two known elements, ‘the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.’” See *In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting

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*Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984)).

*In re Rouffet*, emphasis added.

Applicant respectfully submits that one of ordinary skill in the art would not, as the Examiner would have it, have been motivated to combine the teachings of Seti@home and UNIX or NT servers to provide the above-mentioned features. A person of ordinary skill in the art would not realize that he should pick and choose certain features of each of the references and combine the references in a certain way to arrive at the claimed invention.

Furthermore, Applicant submits that claims 27-41 as now amended recite a firewall, for at least a temporary slave personal computer, allowing access, at least temporarily, to at least one microprocessor of the temporary slave personal computer by a network during a shared computer operation. Seti@home does not disclose, teach or suggest such a firewall.

For the above-mentioned reasons, as well as for reciting other important features, Applicant submits that claims 27-41 are patentable over Seti@home and respectfully requests that the rejection be withdrawn.

New claims 52, 54, 55, 57, 59, 60, 63, 64, 65, 105 and 110 depend, directly or indirectly, from claim 27 and are patentable for the reasons discussed above regarding claim 27, as well as for reciting other important features.

New claims 53, 56, 58, 61, 62, 66 and 111 depend, directly or indirectly, from claim 42 which the Examiner agrees is patentable.

New claims 67 through 79 and 106 correspond or relate to claims 27-29 and 32-41, respectively, but include means plus function language. Claims 67 through 79 and 106 are

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patentable at least for the reasons discussed above regarding claim 27.

New claims 80-89 correspond to claims 42-51, respectively, but include means plus function language. Applicant submits that claims 80-89 are patentable at least for the same reasons as claims 42-51, which the Examiner agrees are patentable.

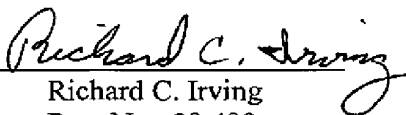
New claims 90-104 are similar to claims 52-66, respectively, but include limitations having means plus function language. Applicants submit that the claims are patentable at least for the reasons discussed above regarding claims 52-66.

New claims 107 through 109 are similar to claims 30, 33 and 35 of related U.S. patent application 08/980,058. The Examiner of application 08/980,058 indicated that claims 30, 33 and 35 are allowable. Therefore, Applicant submits that claims 107-109 are allowable.

All rejections and objections having been addressed, Applicant submits that the application is now in condition for allowance and a notice to that effect is earnestly solicited.

Respectfully submitted,

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