

either side of the preferred firewall **50**, but such devices as the display **67**, graphics card **68** and sound card **69** and those devices that both read and write and have non-volatile memory (retain data without power and generally have to be written over to erase), such as hard drive **62**, Flash memory **65**, floppy drive **62**, read/write CD-ROM **63** or DVD **64** are preferred to be located on the PC user side of the firewall **50**, where the master microprocessor is also located, as shown in FIG. **10A**, for security reasons primarily. Alternately, any or these devices that are duplicative (or for other exceptional needs) like a second hard drive **61** can be located on the network side of the firewall **50**. RAM **66** or equivalent memory, which typically is volatile (data is lost when power is interrupted), should generally be located on the network side of the firewall **50**. However, at least a portion of RAM is can be kept on the Master **30** microprocessor side of the firewall **50**, so that the PC user can use retain the ability to use a core of user PC **1** processing capability entirely separate from any network processing; if this capability is not desired, then the master **30** microprocessor can be moved to the network side of the firewall **50** and replaced with a simpler controller on the PC **1** user side.

And the master microprocessor **30** might also control the use of several or all other processors **60** owned or leased by the PC user, such as home entertainment digital signal processors **70**, especially if the design standards of such microprocessors in the future conforms to the requirements of network parallel processing as described above. In this general approach, the PC master processor would use the slave microprocessors or, if idle (or working on low priority, deferrable processing), make them available to the network provider or others to use. Preferably, wireless connections **100** would be extensively used in home or business network systems, including use of a master remote controller **31** without (or with) microprocessing capability, with preferably broad bandwidth connections such as fiber optic cable connecting directly to at least one component such as a PC **1**, shown in a slave configuration, of the home or business personal network system; that preferred connection would link the home system to the network **2** such as the Internet **3**, as shown in FIG. **10I**.

In the simplest configuration, as shown in FIG. **10B**, the PC **1** would have a single master microprocessor **30** and a single slave microprocessor **40**, preferably separated by a firewall **50**, with both processors used in parallel or multitasking processing or with only the slave **40** so used, and preferably connected to a network computer **2** and Internet **3** (and successors like the MetaInternet). Virtually any number of slave microprocessors **40** is possible. The other non-microprocessor components shown in FIG. **10A** above might also be included in this simple FIG. **10B** configuration.

Preferably, as shown in FIG. **10C**, microprocessors **80** are expected to integrate most or all of the other necessary computer components (or their present or future equivalents or successors), like a PC's memory (RAM **66**, graphics **82**, sound **83**, power management **84**, network communications **85**, and video processing **86**, possibly including modem **87**, flash bios **88**, and other components or present or future equivalents or successors) and internal bus, on a single chip **90** (silicon, plastic, or other), known in the industry as "system on a chip". Such a PC micro chip **90** would preferably have the same architecture as that of the PC **1** shown above in FIG. **10A**: namely, a master control and/or processing unit **93** and one or more slave processing units **94** (for parallel or multitasking processing by either the PC **1** or the Network **2**), preferably separated by a firewall **50** and

preferably connected to a network computer **3** and the Internet **3** and successors like the MetaInternet. In the simplest case, as shown in FIG. **10D**, the chip **90** would have a single master unit **93** and at least one slave unit **94** (with the master having a controlling function only or a processing function also), preferably separated by a firewall **50** and preferably connected to a network computer **3** and the Internet **3** (and successors like the MetaInternet).

As noted in the second paragraph of the introduction to the background of the invention, in the preferred network invention, any computer can potentially be both a user and provider, alternatively—a dual mode. Consequently, any PC **1** within the network **2**, preferably connected to the Internet **3** (and successors like the MetaInternet), can be temporarily a master PC **30** at one time initiating a parallel or multitasking processing request to the network **2** for execution by at least one slave PC **40**, as shown in FIG. **10E**. At another time the same PC **1** can become a slave PC **40** that executes a parallel or multitasking processing request by another PC **1** that has temporarily assumed the function of master **30**, as shown in FIG. **10F**. The simplest approach to achieving this alternation is for both master and slave versions of the parallel processing software to be loaded in each or every PC **1** that is to share in the parallel processing, so each PC **1** has the necessary software means, together with minor operation modifications, such as a switching means by which a signal request for parallel processing initiated by one PC **1** user using master software is transmitted to at least a second PC **1**, triggering its slave software to respond to initiate parallel processing.

As shown in FIGS. **10G** and **10H**, which are parallel to FIGS. **10E** and **10F**, the number of PC slave processors **40** can be increased to any virtually other number, such as at least about 4; the processing system is completely scalar, so that further increases can occur to about eight, about 16, about 32, about 64, about 128, about 256, about 512, about 1024, and so on (these multiples indicated are preferred); the PC master microprocessors **30** can also be increased.

In summary, relative to the use of master/slave computers, FIGS. **10A–10H** show embodiments of a system for a network of computers, including personal computers, comprising: at least two the personal computers; means for at least one the personal computer, when directed by its personal user, to function temporarily as a master personal computer to initiate and control the execution of a computer processing operation shared with at least one other the personal computer in the network; means for at least one other the personal computer, when idled by its personal user, to be made available to function temporarily as at least one slave personal computer to participate in the execution of a shared computer processing operation controlled by the master personal computer; and means for the personal computers to alternate as directed between functioning as a master and functioning as a slave in the shared computer processing operations. In addition, FIGS. **10A–10H** show embodiments including wherein the system is scalar in that the system imposes no limit to the number of personal computers; the system includes at least 256 said personal computers; the system is scalar in that the system imposes no limit to the number of personal computers participating in a single shared computer processing operation, including at least 256 said personal computers; the system is scalar in that the system imposes no limit to the number of personal computers participating in a single shared computer processing operation, including at least 256 said personal computers; the network is connected to the Internet and its equivalents and successors, so that personal computers