cessor controlled by the micro-kernel. A NIC wrapper processor can be implemented to intercept audio packets received by the system and insert them into the streaming data at the DPC level. This reduces host processor handling of external data.

FIG. **5** illustrates the connection of systems **86** and **88** using media bridge **90**. System **86** is similar to above-described systems having host processor **62**A, PSTN interfaces **42**A and **42**B, and network interface **52**. System **88** includes host processor **62**B and PSTN interface **42**C. As illustrated PSTN interfaces can be connected to either a PSTN interface or a private branch exchange (PBX). Media bridge **90** is configured as another network interface for each of systems **86** and **88**. The bridge **90** is provided with input and output buffers in each system. The systems are bridged to each other through the use of a dedicated hardware bridge that can be implemented by one skilled in the art. The bridge can provide a master clocking signal to both systems if required. The real time processing of the micro-kernel can be implemented to allow the data passed through the bridge to be treated either as another media stream or as a high priority buffered task. In a presently preferred embodiment, data received by one system and destined for a network connected to the other system is processed by the system that receives the data and is then transferred to the media bridge, which then directly places the processed data in the output buffer associated with the destined network. This reduces the processing overhead for the host processors. Conversely, data destined for another network can be provided directly to the bridge and the media processing can be left to the host processor of the system that is connected to the destined network. The use of the media bridge to directly forward data to the output buffer associated with the destination network can allow the latency of the bridged system to be kept low enough that the delay is not noticeable to human callers on the network.

The above-described embodiments of the present invention are intended to be examples only. Alterations, modifications and variations may be effected to the particular embodiments by those of skill in the art without departing from the scope of the invention, which is defined solely by the claims appended hereto.

What is claimed is:

1. A system for pseudo-real time processing of media data received from a plurality of sources using a non-real time system, the system comprising:

a first media interface, for receiving an asynchronous media data stream from a first external communications network, and for placing received media data into a first input buffer;

an interrupt scheduler for scheduling execution of a media data processing task on the media data in the first input buffer, and for generating an interrupt signal at fixed time intervals determined in accordance with the speed of the processor and an analysis window set in accordance with a media type of the media data;

a general purpose non-real time processor for suspending processing of other tasks upon receipt of the interrupt signal, for executing the scheduled task on the media data in the first input buffer within a time window that is shorter than the analysis window, and for providing the output of the scheduled task to a second output buffer; and

a second media interface, for transferring data in the second output buffer to a second external communications network.

2. The system of claim **1** wherein the first media interface further includes a first output buffer and means to transfer data from the first output buffer to the first external communications network.

3. The system of claim **2** wherein the second media interface further includes a second input buffer for receiving data from the second external communications network.

4. The system of claim **3** wherein the media processor includes direct memory access means for accessing the contents of the first and second input buffers.

5. The system of claim **3** wherein the media processor includes a means for executing scheduled tasks in accordance with scheduled tasks on the data in the second input buffer and for providing the output of the scheduled task to the first output buffer.

6. The system of claim **1** further including a third media interface, having third input and output buffers, the interface for receiving data from a third external communications network, for placing the received data into a third input buffer, and for transferring data in the third output buffer to the third external communications network.

7. The system of claim **1** further including a media bridge for allowing similar system access to the first and second media interfaces.

8. The system of claim **1** wherein the general purpose non-real time processor converts the media data in the first input buffer to a format of the second external communications network.

9. The system of claim **1** wherein the interrupt signal is a deferred process call.

10. The system of claim **1** wherein the first input buffer is sized in accordance with a data rate of the asynchronous media data stream and the fixed time interval.

11. The system of claim **1** wherein the interrupt scheduler causes the general purpose non-real time processor to resume processing of the other tasks upon completion of the scheduled task.

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