

CLAIMS

What is claimed is:

1. A method comprising:

receiving a plurality of duplicates of a serial bit stream, wherein said serial bit stream comprises a sequence of data packets;

continuously dividing each of said duplicates of said serial bit stream based on sequential time windows;

with respect to each of said time windows, aligning said data packets associated with each of said duplicates of said serial bit stream, received within said time window, based, at least in part, on data packet similarity; and

recreating in real time said serial bit stream by selecting at least one of said aligned data packets as representing a next data packet in said sequence of data packets.

2. The method of claim 1, wherein each of said plurality of duplicates of said serial bit stream is transmitted over a different communication channel.

3. The method of claim 2, wherein each of said communication channels is selected from the group consisting of: a private IP network, a public IP network, the internet, a global system for mobile communications (GSM) network, a local area network (LAN), a metropolitan area network (MAN), a wide area network (WAN), a wireless network, a satellite communication network, a cellular communication network, a Bluetooth communication channel, and a Wi-Fi network.

4. The method of any one of claims 1-3, wherein said aligning comprises arranging said data packets, received within a time window, in columns of an alignment score matrix, based, at least in part, on said data packet similarity, wherein each row in said matrix represents one of said duplicates of said serial bit stream.

5. The method of claim 4, further comprising assigning an alignment score to each of said columns based on one of data packet gaps and data packet mismatches in said column.

6. The method of claim 4, wherein, with respect to each column of said matrix, said selecting is based, at least in part, on a consensus determined by data packet similarity of a majority of data packets in said column.

7. The method of any one of claims 1-6, wherein said data packet similarity is determined based, at least in part, on a comparison of data packet content, wherein said data packet content is represented by a hash function.

8. A system comprising:

at least one hardware processor; and

a non-transitory computer-readable storage medium having program code embodied therewith, the program code executable by said at least one hardware processor to:

receive a plurality of duplicates of a serial bit stream, wherein said serial bit stream comprises a sequence of data packets,

continuously divide each of said duplicates of said serial bit stream based on sequential time windows,

with respect to each of said time windows, align said data packets associated with each of said duplicates of said serial bit stream, received within said time window, based, at least in part, on data packet similarity, and

recreate in real time said serial bit stream by selecting at least one of said aligned data packets as representing a next data packet in said sequence of data packets.

9. The system of claim 8, wherein each of said plurality of duplicates of said serial bit stream is transmitted over a different communication channel.

10. The system of claim 9, wherein each of said communication channels is selected from the group consisting of: a private IP network, a public IP network, the internet, a global system for mobile communications (GSM) network, a local area network (LAN), a metropolitan area network (MAN), a wide area network (WAN), a wireless network, a satellite communication network, a cellular communication network, a Bluetooth communication channel, and a Wi-Fi network.

11. The system of any one of claims 8-10, wherein said aligning comprises arranging said data packets, received within a time window, in columns of an alignment score matrix, based, at least

in part, on said data packet similarity, wherein each row in said matrix represents one of said duplicates of said serial bit stream.

12. The system of claim 11, wherein said instructions are further executable to assign an alignment score to each of said columns based on one of data packet gaps and data packet mismatches in said column.

13. The system of claim 12, wherein, with respect to each column of said matrix, said selecting is based, at least in part, on a consensus determined by data packet similarity of a majority of data packets in said column.

14. The system of any one of claims 8-13, wherein said data packet similarity is determined based, at least in part, on a comparison of data packet content, wherein said data packet content is represented by a hash function.

15. A computer program product comprising a non-transitory computer-readable storage medium having program instructions embodied therewith, the program instructions executable by at least one hardware processor to:

receive a plurality of duplicates of a serial bit stream, wherein said serial bit stream comprises a sequence of data packets;

continuously divide each of said duplicates of said serial bit stream based on sequential time windows;

with respect to each of said time windows, align said data packets associated with each of said duplicates of said serial bit stream, received within said time window, based, at least in part, on data packet similarity; and

recreate in real time said serial bit stream by selecting at least one of said aligned data packets as representing a next data packet in said sequence of data packets.

16. The computer program product of claim 15, wherein each of said plurality of duplicates of said serial bit stream is transmitted over a different communication channel.

17. The computer program product of claim 16, wherein each of said communication channels is selected from the group consisting of: a private IP network, a public IP network, the internet, a

global system for mobile communications (GSM) network, a local area network (LAN), a metropolitan area network (MAN), a wide area network (WAN), a wireless network, a satellite communication network, a cellular communication network, a Bluetooth communication channel, and a Wi-Fi network.

18. The computer program product of any one of claims 15-17, wherein said aligning comprises arranging said data packets, received within a time window, in columns of an alignment score matrix, based, at least in part, on said data packet similarity, wherein each row in said matrix represents one of said duplicates of said serial bit stream.

19. The computer program product of claim 18, wherein said instructions are further executable to assign an alignment score to each of said columns based on one of data packet gaps and data packet mismatches in said column.

20. The computer program product of claim 18, wherein, with respect to each column of said matrix, said selecting is based, at least in part, on a consensus determined by data packet similarity of a majority of data packets in said column.

21. The computer program product of any one of claims 15-20, wherein said data packet similarity is determined based, at least in part, on a comparison of data packet content, wherein said data packet content is represented by a hash function.