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(54) Title: SYSTEM AND METHOD FOR SECURE DELIVERY OF RICH MEDIA



(57) Abstract: A system and method for the secure delivery of rich media resources across a computer network having a plurality of servers connectable to one or more clients. Client devices are configured to request and receive rich media resources form a show server and decryption keys from a security server. The show server receives a request for rich media resources from a client device and delivers them to the requesting client, preferably in an encrypted from. The security server responds to the request for decryption keys and transmits keys that are operative to decrypt the rich media resources received by the client device. Upon receipt of the decryption keys, the rich media resources are decrypted and played back on the client device using media player software. During the playback of the received rich media resources, heartbeat packets are generated indicating that the client is playing back the received rich media resources. Heartbeat packets are aggregated and analyzed across all clients connected to the network for receipt and playback of rich media thereby establishing a resources. mechanism that allows precise show viewership measurements to be made.

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### SYSTEM AND METHOD FOR SECURE DELIVERY OF RICH MEDIA

Applicant(s) hereby claims the benefit of provisional patent application serial no.

60/204,386, titled "AUTOMATIC IPSEC TUNNEL ADMINISTRATION," filed May 15, 2000,

5 attorney docket no. 38903-014. The application is incorporated by reference herein in its entirety.

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#### **RELATED APPLICATIONS**

This application is related to the following commonly owned patent applications,

- 15 each of which applications are hereby incorporated by reference herein in their entirety:
  - application serial no. 09/767,672, titled "METHOD AND SYSTEM FOR DISTRIBUTING VIDEO USING A VIRTUAL SET," attorney docket no. 4700/2;
  - application serial no. 09/767,268, titled "SYSTEM AND METHOD FOR ACCOUNTING FOR VARIATIONS IN CLIENT CAPABILITIES IN THE DISTRIBUTION OF A MEDIA PRESENTATION," attorney docket no. 4700/4;
- 20
- application serial no. 09/767,603, titled "SYSTEM AND METHOD FOR USING BENCHMARKING TO ACCOUNT FOR VARIATIONS IN CLIENT

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CAPABILITIES IN THE DISTRIBUTION OF A MEDIA PRESENTATION," attorney docket no. 4700/5;

- application serial no. 09/767,602, titled "SYSTEM AND METHOD FOR MANAGING CONNECTIONS TO SERVERS DELIVERING MULTIMEDIA CONTENT," attorney docket no. 4700/6;
- application serial no. 09/767,604, titled "SYSTEM AND METHOD FOR RECEIVING PACKET DATA MULTICAST IN SEQUENTIAL LOOPING FASHION," attorney docket no. 4700/7; and
- application serial no. 09/767,607, titled "SYSETM AND METHOD FOR
   DISTRIBUTING CAPTURED MOTION DATA OVER A NETWORK," attorney

docket no. 4700/8.

#### BACKGROUND OF THE INVENTION

The invention disclosed herein relates generally to techniques for distributing interactive multimedia content across computer networks. More particularly, the present

15 invention relates to a system and method for seamlessly and securely distributing rich media among a plurality of clients, thereby allowing creators of rich media to retain control over distribution and playback of their content.

Over the past decade, processing power available to both producers and consumers of multimedia content has increased exponentially. Approximately a decade ago, the

20 transient and persistent memory available to personal computers was measured in kilobytes (8 bits = 1 byte, 1024 bytes = 1 kilobyte) and processing speed was typically in the range of 2 to 16 megahertz. Due to the high cost of personal computers, many institutions opted to utilize

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"dumb" terminals, which lack all but the most rudimentary processing power, connected to large and prohibitively expensive mainframe computers that "simultaneously" distributed the use of their processing cycles with multiple clients.

Today, transient and persistent memory is typically measured in megabytes and gigabytes, respectively (1,048,576 bytes = 1 megabyte, 1,073,741,824 bytes = 1 gigabyte). Processor speeds have similarly increased, modern processors based on the x86 instruction set are available at speeds up to 1.5 gigahertz (approximately 1000 megahertz = 1 gigahertz). Indeed, processing and storage capacity have increased to the point where personal computers, configured with minimal hardware and software modifications, fulfill roles such as data

10 warehousing, serving, and transformation, tasks that in the past were typically reserved for mainframe computers. Perhaps most importantly, as the power of personal computers has increased, the average cost of ownership has fallen dramatically, providing significant computing power to average consumers.

The past decade has also seen the widespread proliferation of computer networks. 15 With the development of the Internet in the late 1960's followed by a series of inventions in the fields of networking hardware and software, the foundation was set for the rise of networked and distributed computing. Once personal computing power advanced to the point where relatively high speed data communication became available from the desktop, a domino effect was set in motion whereby consumers demanded increased network services, which in turn spurred the

20 need for more powerful personal computing devices. This also stimulated the industry for Internet Service providers or ISPs, which provide network services to consumers.

Computer networks transfer data according to a variety of protocols, such as UDP (User Datagram Protocol) and TCP (Transport Control Protocol). According to the UDP

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