

is shown by way of illustration, specific exemplary embodiments of which the invention may be practiced. Each embodiment is described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized, and other changes may be made, without departing from the spirit or scope of the present invention. The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined only by the appended claims.

Throughout the specification and claims, the following terms take the meanings explicitly associated herein, unless the context clearly dictates otherwise. The term "clip" means a piece of raw video footage that has been edited and is waiting to be encoded into a cliplet. The term "cliplet" means clips that are further encoded to supported media player formats, bandwidths, codecs, languages and frame sizes. The term "adlet" means dynamic client objects that have different programmable functions and attributes to manage a media playlist. Referring to the drawings, like numbers indicate like parts throughout the views. Additionally, a reference to the singular includes a reference to the plural unless otherwise stated or is inconsistent with the disclosure herein.

Illustrative Operating Environment

With reference to FIG. 1, an exemplary system in which the invention operates includes wireless mobile devices **105–108**, wireless network **110**, gateway **115**, one or more content delivery networks (CDN) **120**, wide area network (WAN)/local area network (LAN) **200** and one or more world wide web (WWW) origin servers **300**.

Wireless devices **105–108** are coupled to wireless network **110** and are described in more detail in conjunction with FIG. 4. Generally, mobile devices **105–108** include any device capable of connecting to a wireless network such as wireless network **110**. Such devices include cellular telephones, smart phones, pagers, radio frequency (RF) devices, infrared (IR) devices, citizen band radios (CBs), integrated devices combining one or more of the preceding devices, and the like. Mobile devices **105–108** may also include other devices that have a wireless interface such as PDAs, handheld computers, personal computers, multiprocessor systems, microprocessor-based or programmable consumer electronics, network PCs, wearable computers, and the like.

Wireless network **110** transports information to and from devices capable of wireless communication, such as mobile devices **105–108**. Wireless network **110** may include both wireless and wired components. For example, wireless network **110** may include a cellular tower linked to a wired telephone network. Typically, the cellular tower carries communication to and from cell phones, pagers, and other wireless devices, and the wired telephone network carries communication to regular phones, long-distance communication links, and the like.

Wireless network **110** is coupled to WAN/LAN through gateway **115**. Gateway **115** routes information between wireless network **110** and WAN/LAN **200**. For example, a user using a wireless device may browse the Internet by calling a certain number or tuning to a particular frequency. Upon receipt of the number, wireless network **110** is configured to pass information between the wireless device and gateway **115**. Gateway **115** may translate requests for web pages from wireless devices to hypertext transfer protocol (HTTP) messages, which may then be sent to WAN/LAN **200**. Gateway **115** may then translate responses to such messages into a form compatible with the requesting device.

Gateway **115** may also transform other messages sent from wireless devices **105–108** into information suitable for WAN/LAN **200**, such as e-mail, audio, voice communication, contact databases, calendars, appointments, and the like.

Typically, WAN/LAN **200** transmits information between computing devices as described in more detail in conjunction with FIG. 2. One example of a WAN is the Internet, which connects millions of computers over a host of gateways, routers, switches, hubs, and the like. An example of a LAN is a network used to connect computers in a single office. A WAN may connect multiple LANs.

Content delivery network (CDN) **120** is coupled to WAN/LAN **200** through communication mediums. CDN **120** may include many types of CDNs. For example, CDN **120** may include audio/video CDNs **122** designed to optimally deliver audio and video or script/data CDNs **124** designed to optimally deliver script or data to the requesting device. CDNs use various techniques to improve the performance of content delivery for Web sites. They may increase reliability of a web site by providing mirrored content across distributed servers and provide increased bandwidth as compared to a single server. CDNs may also employ various caching techniques to increase the end user's performance. Content may be pushed to the edges of the network to minimize delay associated with retrieving the content. Load balancing may also be used to help route a user's request for content to the best available content source. Typically, a web site subscribes to a CDN and instructs the CDN how to deliver its content. The subscribing web site may serve some content on its own avoiding the CDN and use the CDN to serve other content. While CDNs are typically used for WAN/LAN applications, the technology may be applied to intranets and extranets as well.

WWW origin servers **300** are coupled to WAN/LAN **200** through communication mediums. WWW origin servers **300** provide access to information and services as described in more detail in conjunction with FIG. 3.

FIG. 2 shows another exemplary system in which the invention operates in which a number of local area networks ("LANs") **220_{a-d}** and wide area network ("WAN") **230** interconnected by routers **210**. Routers **210** are intermediary devices on a communications network that expedite message delivery. On a single network linking many computers through a mesh of possible connections, a router receives transmitted messages and forwards them to their correct destinations over available routes. On an interconnected set of LANs, including those based on differing architectures and protocols, a router acts as a link between LANs, enabling messages to be sent from one to another. Communication links within LANs typically include twisted wire pair, fiber optics, or coaxial cable, while communication links between networks may utilize analog telephone lines, full or fractional dedicated digital lines including T1, T2, T3, and T4, Integrated Services Digital Networks (ISDNs), Digital Subscriber Lines (DSLs), wireless links, or other communications links known to those skilled in the art. Furthermore, computers, such as remote computer **240**, and other related electronic devices can be remotely connected to either LANs **220_{a-d}** or WAN **230** via a modem and temporary telephone link. The number of WANs, LANs, and routers in FIG. 2 may be increased or decreased without departing from the spirit or scope of this invention. As such, it will be appreciated that the Internet itself may be formed from a vast number of such interconnected networks, computers, and routers and that an embodiment of the invention could be practiced over the Internet without departing from the spirit and scope of the invention.