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- (54) **Title:** DEVICE IDENTIFICATION AND DEDUPLICATION SYSTEMS AND METHODS

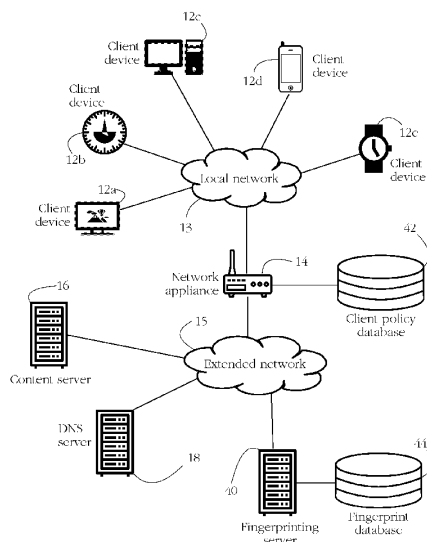


FIG. 1

(57) **Abstract:** Some embodiments construct a device fingerprint of a target device (e.g., personal computer, smartphone) by intercepting an access request issued by the target device. A part of the device fingerprint may be determined according to the access request, e.g., according to various features of a TLS handshake, TCP header, and/or HTTP header of the respective access request. Another part of the device fingerprint is determined by transmitting a fingerprinting probe to the target device in response to the access request, and using executable code included in the fingerprinting probe to extract a set of features characterizing a browser executing on the target device. Some embodiments then compare the device fingerprint with reference fingerprints determined for other devices on the same network, to determine whether the target device is a familiar device or not. Exemplary applications include access control and personalized content distribution, among others.