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(54) **Title:** SECURITY METHODS FOR PROTECTING DISCOVERY PROCEDURES IN WIRELESS NETWORKS

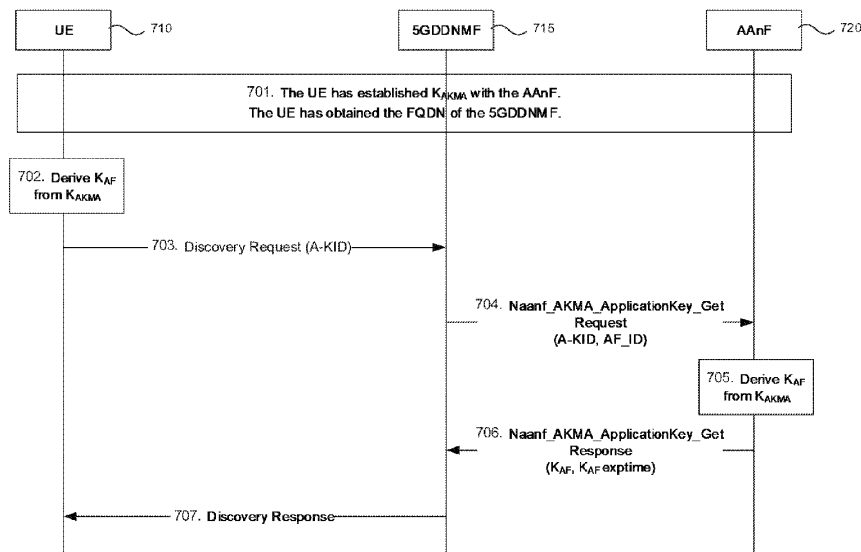


FIG. 7

(57) **Abstract:** This patent document describes, among other things, techniques, and apparatuses for a security method of discovery in proximity-based services. In one aspect, a method of wireless communication is disclosed. The method includes transmitting, by a wireless device to a first network function, an encrypted and integrity-protected message, wherein the encrypted and integrity-protected message is encrypted using a first key that is derived from a second key, wherein the wireless device has established the second key using a communication with a second network function, and wherein the encrypted and integrity-protected message is obtained by encrypting and integrity-protecting a message..

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