

ABSTRACT

The present invention provides a grant-free transmission method, user equipment, an access network device, and a core network device. The method includes: obtaining, by user equipment, a user equipment identifier and a key that are allocated by a core network device
5 and that are used for grant-free transmission; encrypting and encapsulating, by the user equipment, data by using the key and the user equipment identifier; and transmitting, by the user equipment, the encrypted and encapsulated data to an access network device on a first contention transmission unit CTU resource in a grant-free transmission mode. According to technical solutions in the present invention, simple, effective, and secure communication can
10 be implemented in a grant-free transmission scenario.

FIGURE 4