CLAIMS

1. A method for performing a sidelink positioning procedure and/or a ranging procedure in a communication system, wherein the communication system comprises a network system, a first User Equipment (UE1) and a second User Equipment (UE2), and wherein the network system comprises a network function (NF), a unified data management function (UDM) and an access and mobility management function (AMF), and the UE1 and the UE2 registers with the network system, the method comprising:

sending, by the NF, a data retrieval request to the UDM, wherein the data retrieval request prompts the UDM to provide privacy profile data of the UE1 and the UE2, and wherein the privacy profile data indicates whether a first user consent to share location information associated with the UE1 is present and whether a second user consent to share location information associated with the UE2 is present;

receiving, by the NF, the privacy profile data from the UDM;

evaluating, by the NF, the privacy profile data of the UE1 and UE2; and

performing the sidelink positioning procedure and/or the ranging procedure in case the preceding evaluation has resulted in the presence of the first user consent to share location information associated with the UE1 and in the presence of the second user consent to share location information associated with the UE2.

2. The method according to claim 1, wherein evaluating the privacy profile data of the UE1 and UE2 comprises:

determining, by the NF, whether the privacy profile data comprises area-specific consent data for the UE1 and/or the UE2; and

in case it is determined that the privacy profile data comprises area-specific consent data for the UE1 and/or the UE2:

obtaining, by the NF, position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data; and

determining, by the NF, whether the area-specific consent data matches the obtained position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data.

3. The method according to claim 2, wherein the NF is different from the AMF, and obtaining position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data comprises:

sending, by the NF, a request message for obtaining the position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data, to the AMF;

receiving, by the NF, the requested position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data from the AMF.

4. The method according to claim 3, wherein

sending the request message for obtaining the position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data comprises:

sending, by the NF, the request message for obtaining the position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data to the UDM; and

sending, by the UDM, the request message for obtaining the position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data to the AMF;

and/or

receiving the requested position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data from the AMF comprises:

receiving, by the UDM, the requested position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data from the AMF; and

receiving, by the NF, the requested position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data from the UDM.

5. The method according to any of claims 1 to 4, wherein evaluating the privacy profile data of the UE1 and the UE2 comprises:

determining whether the privacy profile data comprises time-specific consent data for the UE1 and/or the UE2; and

in case it is determined that the privacy profile data comprises time-specific consent data for the UE1 and/or the UE2:

determining whether requirements of the time-specific consent data are satisfied.

6. The method according to any of claims 1 to 5, wherein performing the sidelink positioning procedure and/or the ranging procedure in case the preceding evaluation has resulted in the presence of the first user consent to share location information associated with the UE1 and in the presence of the second user consent to share location information associated with the UE2 comprises:

sending, by the NF, a sidelink positioning procedure request and/or a ranging procedure request to the UE1;

initiating, by the UE1, the requested sidelink positioning procedure and/or the requested ranging procedure with UE2; and

providing, by the UE1, a sidelink positioning procedure result and/or the ranging procedure result to the NF.

7. The method according to claim 6, wherein the NF is different from the AMF, and wherein

sending the sidelink positioning procedure request and/or the ranging procedure request to the UE1 comprises:

sending, by the NF, the sidelink positioning procedure request and/or the ranging procedure request to the AMF; and

sending, by the AMF, the sidelink positioning procedure request and/or the ranging procedure request to the UE1;

and

providing the sidelink positioning procedure result and/or the ranging procedure result to the NF comprises:

providing, by the UE1, the sidelink positioning procedure result and/or the ranging procedure result to the AMF; and

- providing, by the AMF, the sidelink positioning procedure result and/or the ranging procedure result to the NF.

8. A method for providing, by a unified data management (UDM), assistance information to a network function (NF), for performing a sidelink positioning procedure and/or a ranging procedure in a communication system, wherein the communication system comprises a network system (20), a first User Equipment (UE1) and a second User Equipment (UE2), and wherein the network system comprises the network function (NF), the unified data management function (UDM) and an access and mobility management function (AMF), the method comprising:

receiving, by the UDM, a data retrieval request from the NF, wherein the data retrieval request prompts the UDM to provide privacy profile data of the UE1 and the UE2, and wherein the privacy profile data indicates whether a first user consent to share location information associated with the UE1 is present, and whether a second user consent to share location information associated with the UE2 is present;

retrieving, by the UDM, the privacy profile data of the UE1 and the UE2 from a database within the UDM, the database comprising a unified data repository (UDR) of the UDM; and

sending, by the UDM, the retrieved privacy profile data of the UE1 and the UE2 to the NF.

9. The method according to claim 8, wherein the UDM is configured to receive privacy profile data of the UE1 and the UE2 to update its database with regard to current privacy settings of the UE1 and UE2.

10. The method according to claim 8 or 9, wherein the privacy profile data comprises area-specific consent data for the UE1 and/or the UE2.

11. The method according to claim 10, further comprising:

receiving, by the UDM, a request message for obtaining position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data from the NF;

sending, by the UDM, a request message for obtaining the position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data to the AMF;

receiving, by the UDM, the requested position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data from the AMF; and

sending, by the UDM, the requested position estimation data for the UE1 and/or the UE2 being associated with the area-specific consent data to the NF.

12. The method according to any of claims 8 to 11, wherein the privacy profile data comprises time-specific consent data for the UE1 and/or the UE2.

13. A method for providing, by an Access and Mobility Management Function (AMF), position estimation data for a first User Equipment (UE1) and a second User Equipment (UE2) for performing a sidelink positioning procedure and/or a ranging procedure in a communication system, wherein the communication system comprises a network system, the first User Equipment (UE1) and the second User Equipment (UE2), and wherein the network system (20) comprises a network function (NF), a unified data management function (UDM) and the access and mobility management function (AMF), the method comprising the following steps:

receiving, by the AMF, a request message for obtaining the position estimation

data for the UE1 and/or the UE2 being associated with an area-specific consent data from the NF or from the UDM; and

sending, by the AMF, the requested position estimation data for the UE1 and/or the UE2 associated with the area-specific consent data to the requesting NF or the requesting UDM.

14. The method according to claim 13, wherein the position estimation data comprises a Tracking Areas Identity (TAI) or a cell ID, the cell ID comprising a NR Cell Global Identifier (NGCI).
15. A network system to be implemented in a communication system, comprising: a network function (NF), a unified data management function (UDM) and an access and mobility management function (AMF), wherein the NF is configured to perform the method according to any of claims 1 to 7.
16. A network system to be implemented in a communication system, in particular to be implemented in a 5G communication system, wherein the network system comprises a network function (NF), a unified data management function (UDM) and an access and mobility management function (AMF), wherein the UDM is configured to perform the method according to any of claims 8 to 12.
17. A network system to be implemented in a communication system, comprising a network function (NF), a unified data management function (UDM) and an access and mobility management function (AMF), wherein the AMF is configured to perform the method according to claim 13 or 14.
18. A user equipment (UE) to be implemented in a communication system, in particular to be used in a 5G communication system, wherein the UE comprises a processing unit (32), a communication unit (34) and a storage unit (36), wherein the storage unit (36) has privacy profile data stored thereon, wherein the privacy profile data indicates whether a user consent to share location information associated with the UE is present.
19. The UE according to claim 18, wherein the privacy profile data comprises area-specific consent data and/or time-specific consent data.
20. A computer program product that, when executed by a processing unit, causes the processing unit to perform the method according to any one of claims 1 to 14.