CLAIMS

1. A user equipment (UE) for wireless communication, comprising:

at least one memory; and

at least one processor coupled with the at least one memory and configured to cause the UE to:

transmit, to a network function, an indication that the UE supports extended steering of roaming standalone non-public network selection information (SOR-SNPN-SI); and

receive, from the network function, a list of Standalone Non-Public Networks (SNPNs) and/or Group Identity for Networks (GINs) that support extended SOR-SNPN-SI.

2. The UE of claim 1, wherein the UE transmits the indication via a registration request message sent during an initiated registration procedure.

3. The UE of claim 1 or 2, wherein the UE receives the list of SNPNs and/or GINs via a registration acceptance message.

4. The UE of any preceding claim, wherein the indication is a bit in an 5GMM capability information element.

5. The UE of any preceding claim, wherein the UE transmits a second indication that the UE supports extended SOR-SNPN-SI to confirm reception of the list of SNPNs and/or GINs via a registration complete message.

6. The UE of claim 5, wherein the second indication is a bit in an SOR transparent container information element.

7. The UE of any preceding claim, wherein the at least one processor is further configured to cause the UE to:

receive a request from the network function to confirm receipt of the list of SNPNs and/or GINs that support extended SOR-SNPN-SI; and

transmit confirmation of the list to the network function.

8. The UE of claim 7, wherein the UE confirms receipt of the list of SNPNs and/or GINs that support extended SOR-SNPN-SI by transmitting its capability to receive the list of SNPNs and/or GINs that support extended SOR-SNPN-SI.

9. The UE of any preceding claim, wherein the indication includes an indication that the UE supports validity time information and/or validity area information for an SNPN and/or GIN.

10. A processor for wireless communication, comprising:

at least one controller coupled with at least one memory and configured to cause the processor to:

transmit, to a network function, an indication that the processor supports extended steering of roaming standalone non-public network selection information (SOR-SNPN-SI); and

receive, from the network function, a list of Standalone Non-Public Networks (SNPNs) and/or Group Identity for Networks (GINs) that support extended SOR-SNPN-SI.

11. The processor of claim 10, wherein the processor transmits the indication via a registration request message sent during an initiated registration procedure.

12. A method performed by a user equipment (UE), the method comprising:

transmitting, to a network function, an indication that the UE supports extended steering of roaming standalone non-public network selection information (SOR-SNPN-SI); and

receiving, from the network function, a list of Standalone Non-Public Networks (SNPNs) and/or Group Identity for Networks (GINs) that support extended SOR-SNPN-SI.

13. A network function for wireless communication, comprising:

at least one memory; and

at least one processor coupled with the at least one memory and configured to cause the network function to:

determine whether to transmit extended steering of roaming standalone non-public network selection information (SOR-SNPN-SI) for Standalone Non-Public Networks (SNPNs) and/or Group Identity for Networks (GINs) that support extended SOR-SNPN-SI to a user equipment (UE); and

transmit a list of SNPNs and/or GINs to the UE based on the determination.

14. The network function of claim 13, wherein the at least one processor is configured to cause the network function to determine whether to transmit the extended SOR-SNPN-SI for the SNPNs and/or GINs based on:

user subscription information associated with the UE for localized services provided by the SNPNs and/or GINs; and

UE capability information for receiving the list of SNPNs and/or GINs that support the extended SOR-SNPN-SI.

15. The network function of claim 14, wherein the localized services are identified by time validity information and/or location validity information within the extended SOR-SNPN-SI.

16. The network function of any one of claims 13 to 15, wherein the UE capability information is received via a registration message sent by the UE to the network function during an initial registration procedure.

17. The network function of any one of claims 13 to 16, wherein the network function transmits the list of the SNPNs and/or GINs to the UE via a network entity,

wherein the network entity is an Access and Mobility Management Function (AMF) and uses an SOR transparent container information element in a registration accept message or a downlink (DL) Non-Access-Stratum (NAS) transport message.

18. The network function of any one of claims 13 to 16, wherein the processor is further configured to cause the network function to:

transmit a request of an acknowledgement for receipt of the list of the SNPNs and/or GINs from the UE,

wherein the network function receives the information via a network entity,

wherein the network entity is an Access and Mobility Management Function (AMF) and receives capability information for the UE for reception of the list of the SNPNs and/or GINs via an SOR transparent container information element in a registration complete message or an uplink (UL) Non-Access-Stratum (NAS) transport message.

19. The network function of any one of claims 13 to 18, wherein the network function is a Unified Data Management (UDM) function.

20. The network function of any one of claims 13 to 19, wherein the network function transmits to a Steering of Roaming Application Function (SOR-AF) a request for creating a SOR transparent container, wherein the request includes UE capability information and UE subscription information for localized services.