CLAIMS

1. A system for communicating across multiple networks comprising:

an application provider operable to assign a second identifier to a first device associated with a first identifier, wherein the first identifier is assigned from an original telecommunications company, and an identifier of a second device and the second identifier are associated with another telecommunications company;

the first device operable to initiate a communication and select at least one first communication network among a plurality of first communication networks for establishing connection between the first device and a server so that the first device sends the communication to the server via the selected first communication network using the second identifier as a sender identifier;

the server operable to

replace the second identifier with the first identifier after receiving the communication from the first device;

select at least one second communication network among a plurality of second communication networks for establishing connection between the second device and the server; and

send the communication to the second device via the selected second communication network using the first identifier as the sender identifier; wherein

the second device is operable to receive the communication with the first identifier as the sender identifier from the server.

2. The system for communicating across multiple networks according to claim 1, wherein the first device is operable to check the state of the first communication network and the state of the second communication network.

3. The system for communicating across multiple networks according to claim 2, wherein the plurality of first and second communication networks include a circuit switched (CS) network and an internet protocol (IP) network.

4. The system for communicating across multiple networks according to claim 3, wherein the first device is operable to check the quality of the IP network as the state of the first communication network and selects at least one of the IP network and the CS network depending on the checked quality of the IP network; and

the server checks IP network quality as the second communication network state and determines at least one of the IP network and the CS network depending on the checked IP network quality.

5. The system for communicating across multiple networks according to claim 4, wherein the server is operable to determine whether the second identifier should be utilized as the sender identifier depending on the selected first communication network.

6. The system for communicating across multiple networks according to claim 5, wherein if the selected first communication network is the IP network, the first device sends the communication to the server via the IP network, and if the selected first communication network is the CS network, the first device sends the communication to the server via the CS network using the second identifier as the sender identifier.

7. The system for communicating across multiple networks according to claim 6, wherein where the communication requested by the first device is the form of a rich message,

if the selected first communication network is the IP network, the first device is operable to send the rich message to the server via the IP network, and

if the selected first communication network is the CS network, the first device is operable to send a simplified message corresponding to the rich message to the server via the CS network.

8. The system for communicating across multiple networks according to claim 7, wherein if the selected second communication network is the IP network, the server is operable to send the rich message to the second device via the IP network, and if the selected second communication network is the CS network, the server is operable to send the simplified message corresponding to the rich message to the second device via the CS network.

9. The system for communicating across multiple networks according to claim 8, wherein the server is operable to recheck the state of the second communication network, and

if reselected second communication network is the IP network, the server synchronizes to the second device to replace the simplified message with the rich message in the second device.

10. The system for communicating across multiple networks according to claim 1, wherein the second device is operable to display the first identifier as the sender identifier on a user interface.

11. The system for communicating across multiple networks according to claim 4, wherein when the second device requests another communication, the second device is operable to select the at least one second communication network among the plurality of second communication networks connected between the second device and the server, and the second device is operable to send the another communication

to the server via the selected second communication network using the first identifier as a recipient identifier.

12. The system for communicating across multiple networks according to claim 11, wherein the server is operable to select the at least one first communication network among the plurality of first communication networks connected between the first device and the server, and sends the another communication to the first device via the selected first communication network using the second identifier as the recipient identifier.

13. The system for communicating across multiple networks according to claim 12, wherein the server is operable to determine whether to use the second identifier as the recipient identifier depending on the selected first communication network.

14. The system for communicating across multiple networks according to claim 13, wherein if the selected first communication network is the IP network, the server is operable to send the another communication to the first device via the IP network, and if the selected first communication network is the CS network, the server is operable to send the another communication to the first device via the CS network using the second identifier as the recipient identifier.

15. The system for communicating across multiple networks according to claim 14, wherein when the another communication is a rich message, if the selected second communication network is the IP network, the second device is operable to send the rich message to the server via the IP network, and if the selected second communication network is the CS network, the second device is operable to send a simplified message corresponding to the rich message to the server via the CS network.

16. The system for communicating across multiple networks according to claim 15, wherein if the selected first communication network is the IP network, the server is operable to send the rich message to the first device via the IP network, and if the selected first communication network is the CS network, the server is operable to send the simplified message corresponding to the rich message to the first device via the CS network.

17. The system for communicating across multiple networks according to claim 16, wherein the server is operable to recheck the first communication network state, and

if reselected first communication network is the IP network, the server synchronizes to the first device to replace the simplified message with the rich message in the first device.

18. The system for communicating across multiple networks according to claim 1, wherein the first identifier is stored in connection with an international mobile subscriber identity (IMSI) of the first device in a home location register (HLR), and

when the first device signs up to an application, the application provider assigns the second identifier and update the HLR so that the second identifier is stored in connection with the IMSI.

19. The system for communicating across multiple networks according to claim 18, wherein the first identifier is a public number of the first device and the second identifier is a private number of the first device.

20. The system for communicating across multiple networks according to claim 1, wherein the communication includes at least one of either call or message.

21. A method for communicating across multiple networks comprising:

initiating, by a first device associated with a first identifier, a communication, wherein the first identifier is assigned from an original telecommunications company, an applicant provider assigns a second identifier to the first device, and an identifier of a second device and the second identifier are associated with another telecommunications company;

selecting, by a first device, at least one first communication network among a plurality of first communication networks for establishing connection between the first device and the server;

sending the communication from the first device to the server via the selected first communication network using the second identifier as a sender identifier;

replacing, by the server, the second identifier with the first identifier;

selecting, by the server, at least one second communication network among a plurality of second communication networks connected between the second device and the server;

sending the communication from the server to the second device via the selected second communication network using the first identifier as the sender identifier; and

receiving, by the second device, the communication with the first identifier as the sender identifier from the server.

22. The method for communicating across multiple networks according to claim 21, wherein the first device is operable to check the state of the first communication network among the plurality of first communication networks connected between the first device and the server, and the server is further operable to check the state of the

second communication network among the plurality of second communication networks connected between the second device and the server.

23. The method for communicating across multiple networks according to claim 22, wherein the plurality of first and second communication networks include CS network and IP network.

24. The method for communicating across multiple networks according to claim 23, wherein the first device checks IP network quality as the first communication network state and determines at least one of the IP network and the CS network depending on the checked IP network quality; and

the server checks IP network quality as the second communication network state and determines at least one of the IP network and the CS network depending on the checked IP network quality.

25. The method for communicating across multiple networks according to claim 24, wherein the server determines whether using the second identifier as the sender identifier depending on the selected first communication network.

26. The method for communicating across multiple networks according to claim 25, wherein if the selected first communication network is the IP network, the first device sends the communication to the server via the IP network, and

if the selected first communication network is the CS network, the first device sends the communication to the server via the CS network using the second identifier as the sender identifier.

27. The method for communicating across multiple networks according to claim 26, wherein the first device requests to send a rich message,

if the selected first communication network is the IP network, the first device sends the rich message to the server via the IP network, and

if the selected first communication network is the CS network, the first device sends a simplified message corresponding to the rich message to the server via the CS network.

28. The method for communicating across multiple networks according to claim 27, wherein if the selected second communication network is the IP network, the server sends the rich message to the second device via the IP network, and

if the selected second communication network is the CS network, the server sends the simplified message corresponding to the rich message to the second device via the CS network.

29. The method for communicating across multiple networks according to claim 28, wherein the server rechecks the second communication network state, and

if reselected second communication network is the IP network, the server synchronizes to the second device to replace the simplified message with the rich message in the second device.

30. The method for communicating across multiple networks according to claim 21, wherein the second device displays the first identifier as the sender identifier on a display.

31. The method for communicating across multiple networks according to claim 24, wherein when the second device requests another communication, the second device

selects the at least one second communication network among the plurality of the second communication networks connected between the second device and the server, and

the second device sends the another communication to the server via the selected second communication network using the first identifier as a recipient identifier.

32. The method for communicating across multiple networks according to claim 31, wherein the server selects the at least one first communication network among the plurality of the first communication networks connected between the first device and the server, and sends the another communication to the first device via the selected first communication network using the second identifier as the recipient identifier.

33. The method for communicating across multiple networks according to claim 32, wherein the server determines whether using the second identifier as the recipient identifier depending on the selected first communication network.

34. The method for communicating across multiple networks according to claim 33, wherein if the selected first communication network is the IP network, the server sends the another communication to the first device via the IP network, and

if the selected first communication network is the CS network, the server sends the another communication to the first device via the CS network using the second identifier as the recipient identifier.

35. The method for communicating across multiple networks according to claim 34, wherein the second device requests to send a rich message,

if the selected second communication network is the IP network, the second device sends the rich message to the server via the IP network, and

if the selected second communication network is the CS network, the second device sends a simplified message corresponding to the rich message to the server via the CS network.

36. The method for communicating across multiple networks according to claim 35, wherein if the selected first communication network is the IP network, the server sends the rich message to the first device via the IP network, and

if the selected first communication network is the CS network, the server sends the simplified message corresponding to the rich message to the first device via the CS network.

37. The method for communicating across multiple networks according to claim 36, wherein the server rechecks the first communication network state, and

if reselected first communication network is the IP network, the server synchronizes to the first device to replace the simplified message with the rich message in the first device.

38. The method for communicating across multiple networks according to claim 21, wherein the first identifier is stored in connection with an IMSI of the first device in a HLR, and

when the first device signs up to an application, the application provider assigns the second identifier and update the HLR so that the second identifier is stored in connection with the IMSI.

39. The method for communicating across multiple networks according to claim 38, wherein the first identifier is a public number of the first device and the second identifier is a private number of the first device.

40. The method for communicating across multiple networks according to claim 21, wherein the communication includes at least one of call and message.

41. A communication facilitator for facilitating communication between parties across multiple networks, comprising:

receiving a communication from a first device associated with a first identifier via a selected first communication network using a second identifier as a sender identifier, wherein the first identifier is assigned from an original telecommunications company, an applicant provider assigns the second identifier to the first device, an identifier of a second device and the second identifier are associated with another telecommunications company, and the selected first communication network is selected among a plurality of first communication networks connected between the first device and the communication facilitator by the first device;

replacing the second identifier with the first identifier;

selecting at least one second communication network among a plurality of second communication networks connected between the second device and the communication facilitator; and

sending the communication to the second device via the selected second communication network using the first identifier as the sender identifier.

42. The communication facilitator for facilitating communication between parties across multiple networks according to claim 41, wherein the first device checks first

communication network state among the plurality of first communication networks connected between the first device and the communication facilitator, and

the communication facilitator checks second communication network state among the plurality of second communication networks connected between the second device and the communication facilitator.

43. The communication facilitator for facilitating communication between parties across multiple networks according to claim 42, wherein the plurality of first and second communication networks include CS network and IP network.

44. The communication facilitator for facilitating communication between parties across multiple networks according to claim 43, wherein the first device checks IP network quality as the first communication network state and determines at least one of the IP network and the CS network depending on the checked IP network quality; and

the communication facilitator checks IP network quality as the second communication network state and determines at least one of the IP network and the CS network depending on the checked IP network quality.

45. The communication facilitator for facilitating communication between parties across multiple networks according to claim 44, wherein the communication facilitator determines whether using the second identifier as the sender identifier depending on the selected first communication network.

46. The communication facilitator for facilitating communication between parties across multiple networks according to claim 45, wherein if the selected first

communication network is the IP network, the communication facilitator receives the communication from the first device via the IP network, and

if the selected first communication network is the CS network, the communication facilitator receives the communication from the first device via the CS network using the second identifier as the sender identifier.

47. The communication facilitator for facilitating communication between parties across multiple networks according to claim 46, wherein the communication facilitator receives a request for sending a rich message,

if the selected first communication network is the IP network, the communication facilitator receives the rich message from the first device via the IP network, and

if the selected first communication network is the CS network, the communication facilitator receives a simplified message corresponding to the rich message from the first device via the CS network.

48. The communication facilitator for facilitating communication between parties across multiple networks according to claim 47, wherein if the selected second communication network is the IP network, the communication facilitator sends the rich message to the second device via the IP network, and

if the selected second communication network is the CS network, the communication facilitator sends the simplified message corresponding to the rich message to the second device via the CS network.

49. The communication facilitator for facilitating communication between parties across multiple networks according to claim 48, wherein the communication facilitator rechecks the second communication network state, and

if reselected second communication network is the IP network, the communication facilitator synchronizes to the second device to replace the simplified message with the rich message in the second device.

50. The communication facilitator for facilitating communication between parties across multiple networks according to claim 44, wherein when the communication facilitator receives a request for an another communication from the second device, the second device selects the at least one second communication network among the plurality of the second communication networks connected between the second device and the communication facilitator, and

the communication facilitator receives the another communication from the second device via the selected second communication network using the first identifier as a recipient identifier.

51. The communication facilitator for facilitating communication between parties across multiple networks according to claim 50, wherein the communication facilitator selects the at least one first communication network among the plurality of the first communication networks connected between the first device and the communication facilitator, and sends the another communication to the first device via the selected first communication network using the second identifier as the recipient identifier.

52. The communication facilitator for facilitating communication between parties across multiple networks according to claim 51, wherein the communication facilitator determines whether using the second identifier as the recipient identifier depending on the selected first communication network.

53. The communication facilitator for facilitating communication between parties across multiple networks according to claim 52, wherein if the selected first

communication network is the IP network, the communication facilitator sends the another communication to the first device via the IP network, and

if the selected first communication network is the CS network, the communication facilitator sends the another communication to the first device via the CS network using the second identifier as the recipient identifier.

54. The communication facilitator for facilitating communication between parties across multiple networks according to claim 53, wherein the communication facilitator receives a request for sending a rich message from the second device,

if the selected second communication network is the IP network, the communication facilitator receives the rich message from the second device via the IP network, and

if the selected second communication network is the CS network, the communication facilitator receives a simplified message corresponding to the rich message from the second device via the CS network.

55. The communication facilitator for facilitating communication between parties across multiple networks according to claim 54, wherein if the selected first communication network is the IP network, the communication facilitator sends the rich message to the first device via the IP network, and

if the selected first communication network is the CS network, the communication facilitator sends the simplified message corresponding to the rich message to the first device via the CS network.

56. The communication facilitator for facilitating communication between parties across multiple networks according to claim 55, wherein the communication facilitator rechecks the first communication network state, and

if reselected first communication network is the IP network, the communication facilitator synchronizes to the first device to replace the simplified message with the rich message in the first device.

57. The communication facilitator for facilitating communication between parties across multiple networks according to claim 41, wherein the first identifier is stored in connection with an IMSI of the first device in a HLR, and

when the first device signs up to an application, the application provider assigns the second identifier and update the HLR so that the second identifier is stored in connection with the IMSI.

58. The communication facilitator for facilitating communication between parties across multiple networks according to claim 57, wherein the first identifier is a public number of the first device and the second identifier is a private number of the first device.

59. The communication facilitator for facilitating communication between parties across multiple networks according to claim 41, wherein the communication includes at least one of call and message.

60. A non-transitory computer readable medium containing executable software instructions thereon wherein when installed and executed on a mobile device of a user for facilitating communication between parties in multi-network, performs a method comprising the steps of:

initiating a communication, wherein the mobile device is associated with a first identifier assigned from an original telecommunications company and is assigned a

second identifier from an application provider, and an identifier of a second device and the second identifier are associated with another telecommunications company;

selecting at least one first communication network among a plurality of first communication networks connected between the mobile device and a server;

sending the communication from the mobile device to the server via the selected first communication network using the second identifier as a sender identifier;

sending an instruction to the server to replace the second identifier with the first identifier;

sending an instruction to the server to select at least one second communication network among a plurality of second communication networks connected between the second device and the server; and

sending an instruction to the server to send the communication from the server to the second device via the selected second communication network using the first identifier as the sender identifier.