

CLAIMS

1. A method of wireless communications, comprising:
determining, by a device host (DH), that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and
communicating the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.
2. The method of claim 1, wherein the DH is configured in a Poll Mode, and wherein the determining further comprises:
receiving an activation motivation message from the NFC Controller; and
generating the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.
3. The method of claim 1, wherein the DH is configured in a Listen Mode, and further comprising:
receiving the parameter selection request message from the remote NFC endpoint.
4. The method of claim 1, further comprising:
transmitting a payload to the remote NFC endpoint using a data exchanging protocol using at least one of the one or more parameter values.
5. The method of claim 1, wherein the one or more parameter values include at least one value for a parameter from among:

a RF technology and mode parameter;
a transmit bit rate parameter;
a receive bit rate parameter; and
a maximum payload size parameter.

6. The method of claim 5, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, and a NFC-F technology.

7. The method of claim 1, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

8. A method of wireless communications, comprising:
receiving, by a near field communication (NFC) Controller using a NFC data exchange protocol (NFC-DEP) interface, a parameter selection request message including one or more parameters;
determining to implement one or more parameter changes based on the received one or more parameters; and
communicating an activation message to a device host (DH) indicating values to which the NFC Controller changed the one or more parameter values.

9. The method of claim 8, wherein an apparatus associated with the NFC Controller and the DH is configured in a Poll Mode, and wherein the parameter selection request message is received from the DH.

10. The method of claim 8, wherein an apparatus associated with the NFC Controller and the DH is configured in a Listen Mode, wherein the determining further comprises:
receiving attributes from a remote NFC endpoint;
waiting for a message to be communicated by the remote NFC endpoint after receiving the attributes;
receiving the waited for message;

determining the waited for message is the parameter selection request message;
communicating the activation message to the DH including the one or more parameters; and
transmitting a parameter selection response to the remote NFC endpoint.

11. The method of claim 10, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

12. The method of claim 8, further comprising:
transmitting a payload to the remote NFC endpoint using the NFC-DEP interface and using at least one of the one or more parameter values.

13. The method of claim 8, wherein the one or more parameter values include at least one value for a parameter from among:
a RF technology and mode parameter;
a transmit bit rate parameter;
a receive bit rate parameter; and
a maximum payload size parameter.

14. The method of claim 13, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

15. A computer program product, comprising:
a computer-readable medium comprising code for causing a computer to:
determine, by a device host (DH), that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and
communicate the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during

discovery to the one or more parameter values included in the parameter selection request message.

16. The computer program product of claim 15, wherein the DH is configured in a Poll Mode, and wherein the computer-readable medium further comprises code for causing the computer to:

receive an activation motivation message from the NFC Controller; and

generate the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

17. The computer program product of claim 15, wherein the DH is configured in a Listen Mode, and wherein the computer-readable medium further comprises code for causing the computer to:

receive the parameter selection request message from the remote NFC endpoint.

18. The computer program product of claim 15, wherein the computer-readable medium further comprises code for causing the computer to:

communicate a payload using a data exchanging protocol using at least one of the one or more parameter values.

19. The computer program product of claim 15, wherein the one or more parameter values include at least one value for a parameter from among:

a RF technology and mode parameter;

a transmit bit rate parameter;

a receive bit rate parameter; and

a maximum payload size parameter.

20. The computer program product of claim 19, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, and a NFC-F technology.

21. The computer program product of claim 15, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

22. A computer program product, comprising:

a computer-readable medium comprising code for causing a computer to:

receive, by a near field communication (NFC) Controller using a NFC data exchange protocol (NFC-DEP) interface, a parameter selection request message including one or more parameters;

determine to implement one or more parameter changes based on the received one or more parameters; and

communicate an activation message to a DH indicating values to which the NFC Controller changed the one or more parameter values.

23. The computer program product of claim 22, wherein an apparatus associated with the NFC Controller and the DH is operating in a Poll Mode, and wherein the parameter selection request message is received from the DH.

24. The computer program product of claim 22, wherein an apparatus associated with the NFC Controller and the DH is operating in a Listen Mode, and wherein the computer-readable medium further comprises code for causing the computer to:

receive attributes from a remote NFC endpoint;

wait for a message to be communicated by the remote NFC endpoint after receiving the attributes;

receive the waited for message;

determine the waited for message is the parameter selection request message;

communicate the activation message to the DH including the one or more parameters; and

transmit a parameter selection response to the remote NFC endpoint.

25. The computer program product of claim 24, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

26. The computer program product of claim 22, wherein the computer-readable medium further comprises code for causing the computer to:

transmit a payload using the NFC-DEP interface and using at least one of the one or more parameter values.

27. The computer program product of claim 22, wherein the one or more parameter values include at least one value for a parameter from among:

a RF technology and mode parameter;

a transmit bit rate parameter;

a receive bit rate parameter; and

a maximum payload size parameter.

28. The computer program product of claim 27, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

29. An apparatus for communications, comprising:

means for determining, by a device host (DH), that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and

means for communicating the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.

30. The apparatus of claim 29, wherein the DH is configured in a Poll Mode, and wherein the means for determining further comprises:

means for receiving an activation motivation message from the NFC Controller;
and

means for generating the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

31. The apparatus of claim 29, wherein the DH is configured in a Listen Mode, and further comprising:

means for receiving the parameter selection request message from the remote NFC endpoint.

32. The apparatus of claim 29, further comprising:

means for transmitting a payload to the remote NFC endpoint using a data exchanging protocol using at least one of the one or more parameter values.

33. The apparatus of claim 29, wherein the one or more parameter values include at least one value for a parameter from among:

- a RF technology and mode parameter;
- a transmit bit rate parameter;
- a receive bit rate parameter; and
- a maximum payload size parameter.

34. The apparatus of claim 33, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

35. The apparatus of claim 29, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

36. An apparatus for communications, comprising:

means for receiving, by a near field communication (NFC) Controller using a NFC data exchange protocol (NFC-DEP), a parameter selection request message including one or more parameters;

means for determining to implement one or more parameter changes based on the received one or more parameters; and

means for communicating an activation message to a DH indicating values to which the NFC Controller changed the one or more parameter values.

37. The apparatus of claim 36, wherein the apparatus associated with the NFC Controller and the DH is operating in a Poll Mode, and wherein the parameter selection request message is received from the DH.

38. The apparatus of claims 36, wherein the apparatus associated with the NFC Controller and the DH is operating in a Listen Mode, and further comprising:

means for receiving attributes from a remote NFC endpoint;

means for waiting for a message to be communicated by the remote NFC endpoint after receiving the attributes;

means for receiving the waited for message;

means for determining the waited for message is the parameter selection request message;

means for communicating the activation message to the DH including the one or more parameters; and

means for transmitting a parameter selection response to the remote NFC endpoint.

39. The apparatus of claim 38, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

40. The apparatus of claim 36, further comprising:

means for transmitting a payload to the remote NFC endpoint using the NFC-DEP interface and using at least one of the one or more parameter values.

41. The apparatus of claim 36, wherein the one or more parameter values include at least one value for a parameter from among:

- a RF technology and mode parameter;
- a transmit bit rate parameter;
- a receive bit rate parameter; and
- a maximum payload size parameter.

42. The apparatus of claim 41, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

43. An apparatus for communications, comprising:

a device host (DH) configured to:

determine that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and

communicate the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.

44. The apparatus of claim 43, wherein the DH is configured in a Poll Mode, and wherein the DH is further configured to:

receive an activation motivation message from the NFC Controller; and

generate the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

45. The apparatus of claim 43, wherein the DH is configured in a Listen Mode, and wherein the DH is further configured to:

receive the parameter selection request message from the remote NFC endpoint.

46. The apparatus of claim 43, wherein the DH is further configured to:

transmit a payload to the remote NFC endpoint using a data exchanging protocol using at least one of the one or more parameter values.

47. The apparatus of claim 43, wherein the one or more parameter values include at least one value for a parameter from among:

a RF technology and mode parameter;

a transmit bit rate parameter;

a receive bit rate parameter; and

a maximum payload size parameter.

48. The apparatus of claim 47, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

49. The apparatus of claim 43, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

50. An apparatus for communications, comprising:

a near field communication (NFC) Controller configured to:

receive a parameter selection request message including one or more parameters, wherein the NFC Controller is using a NFC data exchange protocol (NFC-DEP) interface;

determine to implement one or more parameter changes based on the received one or more parameters; and

communicate an activation message to a DH indicating values to which the NFC Controller changed the one or more parameter values.

51. The apparatus of claim 50, wherein the apparatus associated with the NFC Controller and the DH is operating in a Poll Mode, and wherein the parameter selection request message is received from the DH.

52. The apparatus of claim 50, wherein the apparatus associated with the NFC Controller and the DH is operating in a Listen Mode, and wherein the NFC Controller is further configured to:

- receive attributes from a remote NFC endpoint;
- wait for a message to be communicated by the remote NFC endpoint after receiving the attributes;
- receive the waited for message;
- determine the waited for message is the parameter selection request message;
- communicate the activation message to the DH including the one or more parameters; and
- transmit a parameter selection response to the remote NFC endpoint.

53. The apparatus of claim 52, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

54. The apparatus of claim 50, wherein the NFC Controller is further configured to:
transmit a payload to the remote NFC endpoint using the NFC-DEP interface and using at least one of the one or more parameter values.

55. The apparatus of claim 50, wherein the one or more parameter values include at least one value for a parameter from among:
a RF technology and mode parameter;
a transmit bit rate parameter;
a receive bit rate parameter; and
a maximum payload size parameter.

56. The apparatus of claim 55, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

CLAIMS

1. A method of wireless communications, comprising:
determining, by a device host (DH), that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and
communicating the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.
2. The method of claim 1, wherein the DH is configured in a Poll Mode, and wherein the determining further comprises:
receiving an activation notification message from the NFC Controller; and
generating the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

3. The method of claim 1, wherein the DH is configured in a Listen Mode, and further comprising:

receiving the parameter selection request message from the remote NFC endpoint.

4. The method of claim 1, further comprising:

transmitting a payload to the remote NFC endpoint using a data exchanging protocol using at least one of the one or more parameter values.

5. The method of claim 1, wherein the one or more parameter values include at least one value for a parameter from among:

a RF technology and mode parameter;

a transmit bit rate parameter;

a receive bit rate parameter; and

a maximum payload size parameter.

6. The method of claim 5, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, and a NFC-F technology.

7. The method of claim 1, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

8. A computer program product, comprising:

a non-transitory computer-readable medium comprising code for causing a computer to:

determine, by a device host (DH), that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and

communicate the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.

9. The computer program product of claim 8, wherein the DH is configured in a Poll Mode, and wherein the non-transitory computer-readable medium further comprises code for causing the computer to:

- receive an activation notification message from the NFC Controller; and

- generate the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

10. The computer program product of claim 8, wherein the DH is configured in a Listen Mode, and wherein the non-transitory computer-readable medium further comprises code for causing the computer to:

- receive the parameter selection request message from the remote NFC endpoint.

11. The computer program product of claim 8, wherein the non-transitory computer-readable medium further comprises code for causing the computer to:

- communicate a payload using a data exchanging protocol using at least one of the one or more parameter values.

12. The computer program product of claim **8**, wherein the one or more parameter values include at least one value for a parameter from among:

- a RF technology and mode parameter;
- a transmit bit rate parameter;
- a receive bit rate parameter; and
- a maximum payload size parameter.

13. The computer program product of claim **12**, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, and a NFC-F technology.

14. The computer program product of claim **8**, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

15. An apparatus for communications, comprising:

- means for determining, by a device host (DH), that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and
- means for communicating the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.

16. The apparatus of claim **15**, wherein the DH is configured in a Poll Mode, and wherein the means for determining further comprises:

means for receiving an activation notification message from the NFC Controller; and

means for generating the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

17. The apparatus of claim **15**, wherein the DH is configured in a Listen Mode, and further comprising:

means for receiving the parameter selection request message from the remote NFC endpoint.

18. The apparatus of claim **15**, further comprising:

means for transmitting a payload to the remote NFC endpoint using a data exchanging protocol using at least one of the one or more parameter values.

19. The apparatus of claim **15**, wherein the one or more parameter values include at least one value for a parameter from among:

a RF technology and mode parameter;

a transmit bit rate parameter;

a receive bit rate parameter; and

a maximum payload size parameter.

20. The apparatus of claim **19**, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

21. The apparatus of claim **15**, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.

22. An apparatus for communications, comprising:
a device host (DH) configured to:

determine that one or more parameter values included in a parameter selection request message are different than one or more corresponding parameter values used during discovery of a remote Near Field Communication (NFC) endpoint using a frame radio frequency (RF) interface; and

communicate the one or more parameter values to a NFC Controller using a parameter update message, wherein the parameter update message prompts the NFC Controller to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message.

23. The apparatus of claim **22**, wherein the DH is configured in a Poll Mode, and wherein the DH is further configured to:

receive an activation notification message from the NFC Controller; and

generate the parameter selection request message to change the one or more corresponding parameter values used during discovery to the one or more parameter values included in the parameter selection request message, where the one or more parameter values included in the parameter selection request message are different than the one or more corresponding parameter values used during discovery.

24. The apparatus of claim **22**, wherein the DH is configured in a Listen Mode, and wherein the DH is further configured to:

receive the parameter selection request message from the remote NFC endpoint.

25. The apparatus of claim **22**, wherein the DH is further configured to:

transmit a payload to the remote NFC endpoint using a data exchanging protocol using at least one of the one or more parameter values.

26. The apparatus of claim **22**, wherein the one or more parameter values include at least one value for a parameter from among:

- a RF technology and mode parameter;
- a transmit bit rate parameter;
- a receive bit rate parameter; and
- a maximum payload size parameter.

27. The apparatus of claim **26**, wherein the RF technology and mode parameter indicates a technology among: a NFC-A technology, a NFC-B technology, or a NFC-F technology.

28. The apparatus of claim **22**, wherein the remote NFC endpoint includes one device from among: a peer NFC device, a reader device, a writer device, a remote NFC tag, and a NFC card.