CLAIMS:

1. A method to enhance connectivity for a device in a wireless local area network, the method comprising:

receiving (716), during network discovery, a registration response (118) at the device (114), the registration response (118) indicating one or more registration plans (119);

selecting (720) a registration plan (314) from the one or more registration plans (119); and

sending (724) registration information (316) associated with the device (114) to a network entity, the registration information selected based on the selected registration plan.

2. A method as defined in claim 1, wherein the network entity is an access point (104a, 104b, 104c).

3. A method as defined in claim 1 further comprising, prior to receiving the registration response at the device (114), sending (710) a registration request (116) from the device (114) to the network entity.

4. A method as defined in claim 3, wherein the registration response (118) is communicated by the network entity in response to the registration request (116) from the device (114).

5. A method as defined in claim 1, wherein the selecting of the registration plan (314) from the one or more registration plans (119) is performed by the device (114).

6. A method as defined in claim 1 further comprising sending an identifier of the selected registration plan (314) to the network entity in association with the registration information (316).

7. A method as defined in claim 1, wherein the registration information (316) includes at least one of a terms and conditions acceptance, a username, or a user identity.

8. A method as defined in claim 1, wherein each of the one or more registration plans (119) is associated with one of a time-based plan, a pay-as-you-go plan, or a free access plan.

9. A method as defined in claim 1, wherein the network entity provides access to a local area network.

10. A method as defined in claim 9, wherein the one or more registration plans (119) are associated with registering the device (114) with an external network (106a, 106b, 110, 108a, 108b) in communication with the local area network.

11. A method as defined in claim 10, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114) based on the one or more registration plans (119).

12. A method as defined in claim 9, wherein the local area network is a wireless local area network.

13. A method as defined in claim 1, wherein the one or more registration plans (119) are in an extensible markup language (XML) format.

14. A method as defined in claim 1 further comprising:

sending a provisioning request (320) from the device (114) to the network entity; and

receiving, in response to the provisioning request, a provisioning status indicative of whether the device is successfully provisioned.

15. A method as defined in claim 1, wherein the sending of the registration information (316) associated with the device (114) to the network entity comprises sending the registration information (316) using an extensible authentication protocol (EAP) method.

16. An apparatus to enhance connectivity for a device in a wireless local area network, the apparatus comprising:

a processor (502) configured to:

receive (716), during network discovery, a registration response (118) at the device (114), the registration response (118) indicating one or more registration plans (119);

select (720) a registration plan (314) from the one or more registration plans (119); and

send (724) registration information (316) associated with the device (114) to a network entity, the registration information selected based on the selected registration plan.

17. An apparatus as defined in claim 16, wherein the network entity is an access point (104a, 104b, 104c).

18. An apparatus as defined in claim 16, wherein the processor (502) is configured to, prior to receiving the registration response at the device (114), send (710) a registration request (116) from the device (114) to the network entity.

19. An apparatus as defined in claim 18, wherein the registration response (118) is communicated by the network entity in response to the registration request (116) from the device (114).

20. An apparatus as defined in claim 16, wherein the processor (502) is configured to send an identifier of the selected registration plan (314) to the network entity in association with the registration information (316).

21. An apparatus as defined in claim 16, wherein the registration information (316) includes at least one of a terms and conditions acceptance, a username, or a user identity.

22. An apparatus as defined in claim 16, wherein each of the one or more registration plans (119) is associated with one of a time-based plan, a pay-as-you-go plan, or a free access plan.

23. An apparatus as defined in claim 16, wherein the network entity provides access to a local area network.

24. An apparatus as defined in claim 23, wherein the one or more registration plans (119) are associated with registering the device (114) with an external network (106a, 106b, 110, 108a, 108b) in communication with the local area network.

25. An apparatus as defined in claim 24, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114) based on the one or more registration plans (119).

26. An apparatus as defined in claim 23, wherein the local area network is a wireless local area network.

27. An apparatus as defined in claim 16, wherein the one or more registration plans (119) are in an extensible markup language (XML) format.

28. An apparatus as defined in claim 16, wherein the processor is configured to:

send a provisioning request (320) to the network entity; and

receive, in response to the provisioning request, a provisioning status indicative of whether the device is successfully provisioned.

29. An apparatus as defined in claim 16, wherein the processor (502) is configured to send the registration information (316) associated with the device (114) to the network entity by sending the registration information (316) using an extensible authentication protocol (EAP) method.

30. A method to register a device at a wireless local area network, the method comprising:

receiving (712) a registration request (116) from the device (114);

sending (714), during network discovery, a response (118) to the device (114) in response to the registration request (116), the response (118) including one or more registration plans (119) associated with registering the device (114) for network access via the wireless local area network; and

receiving registration information (316) from the device (114), the registration information (316) associated with one of the one or more registration plans (119) selected by the device (114).

31. A method as defined in claim 30, wherein the registration information (316) from the device (114) is responsive to the response (118) to the device (114).

32. A method as defined in claim 30 further comprising receiving an identifier of a registration plan (314) selected from the one or more registration plans (119).

33. A method as defined in claim 32 further comprising sending (728) a message to an external network (106a, 106b, 110, 108a, 108b) that is external to the wireless local area network, the message comprising at least the identifier of the selected registration plan and the registration information.

34. A method as defined in claim 33 further comprising receiving (730), from the external network (106a, 106b, 110, 108a, 108b), a registration status associated with the selected registration plan and the registration information, the registration status being indicative of whether the device (114) is successfully registered with the external network (106a, 106b, 110, 108a, 108b).

35. A method as defined in claim 33, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114) based on the one or more registration plans (119).

36. A method as defined in claim 30 further comprising:

receiving a provisioning request (320) from the device (114); and

sending, in response to the provisioning request (320), a provisioning status indicative of whether the device (114) is successfully provisioned with a network (106a, 106b, 110, 108a, 108b) external to the wireless local area network.

37. A method as defined in claim 30, wherein the one or more registration plans (119) are associated with registering the device (114) with an external network (106a, 106b, 110, 108a, 108b) in communication with the wireless local area network.

38. A method as defined in claim 30, wherein the one or more registration plans (119) are in an extensible markup language (XML) format.

39. A method as defined in claim 30, wherein the receiving of the registration information (316) from the device (114) comprises receiving the registration information (316) using an extensible authentication protocol (EAP) method.

40. An apparatus to register a device at a wireless local area network, the apparatus comprising:

a processor (502) configured to:

receive (712) a registration request (116) from the device (114);

send (714), during network discovery, a response (118) to the device (114) in response to the registration request (116), the response (118) including one or more registration plans (119) associated with registering the device (114) for network access via the wireless local area network; and

receive registration information (316) from the device (114), the registration information (316) associated with one of the one or more registration plans (119) selected by the device (114).

41. An apparatus as defined in claim 40, wherein the registration information (316) from the device (114) is responsive to the response (118) to the device (114).

42. An apparatus as defined in claim 40, wherein the processor (502) is configured to receive an identifier of a registration plan (314) selected from the one or more registration plans (119).

43. An apparatus as defined in claim 42, wherein the processor (502) is configured to send (728) a message to an external network (106a, 106b, 110, 108a, 108b) that is external to the wireless local area network, the message comprising at least the identifier of the selected registration plan and the registration information.

44. An apparatus as defined in claim 43, wherein the processor (502) is configured to receive (730), from the external network (106a, 106b, 110, 108a, 108b), a registration status associated with the selected registration plan and the registration information, the registration status being indicative of whether the device (114) is successfully registered with the external network (106a, 106b, 110, 108a, 108b).

45. An apparatus as defined in claim 43, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114) based on the one or more registration plans (119).

46. An apparatus as defined in claim 40, wherein the processor (502) is configured to:

receive a provisioning request (320) from the device (114); and

send, in response to the provisioning request (320), a provisioning status indicative of whether the device (114) is successfully provisioned with a network (106a, 106b, 110, 108a, 108b) external to the wireless local area network.

47. An apparatus as defined in claim 40, wherein the one or more registration plans (119) are associated with registering the device (114) with an external network (106a, 106b, 110, 108a, 108b) in communication with the wireless local area network.

48. An apparatus as defined in claim 40, wherein the one or more registration plans (119) are in an extensible markup language (XML) format.

49. An apparatus as defined in claim 40, wherein the processor (502) is configured to receive the registration information (316) from the device (114) by receiving the registration information (316) using an extensible authentication protocol (EAP) method.

50. A method to establish registered network access, the method comprising:

receiving (736), during network discovery, a message from a network entity, the message comprising a registration status (122) indicative of whether a device (114) is successfully registered with an external network (106a, 106b, 110, 108a, 108b) in communication with a network associated with the network entity; and

when the received registration status (122) is indicative of a successful registration, sending (746) payment information (318) associated with the successful registration.

51. A method as defined in claim 50, wherein the network entity is an access point (104a, 104b, 104c).

52. A method as defined in claim 50 further comprising, when the received registration status (122) is indicative of at least one of missing registration information or invalid registration information, sending alternative registration information to the network entity.

53. A method as defined in claim 50, wherein, when receiving the message from the network entity, the device (114) is in one of a registration state, a discovery state, a provisioning state, or an access state.

54. A method as defined in claim 50, wherein the payment information (318) includes at least one of a credit card number, a pre-paid account number, or a coupon number.

55. A method as defined in claim 50, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114).

56. A method as defined in claim 50, wherein the network associated with the network entity is a wireless local area network.

57. A method as defined in claim 50, wherein the sending of the payment information comprises the device (114) sending the payment information (318) to the network entity using an extensible authentication protocol (EAP) method.

58. An apparatus to establish registered network access, the apparatus comprising:

a processor (502) configured to:

receive (736), during network discovery, a message from a network entity, the message comprising a registration status (122) indicative of whether a device (114) is successfully registered with an external network (106a, 106b, 110, 108a, 108b) in communication with a network associated with the network entity; and

when the received registration status (122) is indicative of a successful registration, send (746) payment information (318) associated with the successful registration.

59. An apparatus as defined in claim 58, wherein the network entity is an access point (104a, 104b, 104c).

60. An apparatus as defined in claim 58, wherein the processor (502) is configured to send alternative registration information to the network entity when the received registration status (122) is indicative of at least one of missing registration information or invalid registration information.

61. An apparatus as defined in claim 58, wherein, when the processor (502) receives the message from the network entity, the device (114) is in one of a registration state, a discovery state, a provisioning state, or an access state.

62. An apparatus as defined in claim 58, wherein the payment information (318) includes at least one of a credit card number, a pre-paid account number, or a coupon number.

63. An apparatus as defined in claim 58, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114).

64. An apparatus as defined in claim 58, wherein the network associated with the network entity is a wireless local area network.

65. An apparatus as defined in claim 58, wherein the processor (502) is configured to send the payment information (318) by sending the payment information (318) to the network entity using an extensible authentication protocol (EAP) method.

66. A method to register with an external network using an extensible authentication protocol (EAP) method, the method to register comprising:

receiving (716), during network discovery, one or more registration plans (119) from a network entity;

selecting a registration plan (314) from the one or more registration plans (119); and

using the EAP method to send (724) registration information (316) associated with the device (114) to the network entity, the registration information (316) selected based on the selected registration plan (314).

67. A method as defined in claim 66, wherein the network entity is an access point (104a, 104b, 104c).

68. A method as defined in claim 66, wherein the EAP method is a tunneled authentication protocol.

69. A method as defined in claim 66, wherein the EAP method provides an authentication framework for hotspot access of wireless networks.

70. A method as defined in claim 66, wherein the one or more registration plans (119) are received and the registration information (316) is sent using a type-length-value (TLV) structure format.

71. A method as defined in claim 66 further comprising receiving payment requirements and sending (746) payment information responsive to the payment requirements using a type-length-value (TLV) structure format.

72. A method as defined in claim 66 further comprising receiving provisioning requirements and sending provisioning information responsive to the provisioning requirements using a type-length-value (TLV) structure format.

73. A method as defined in claim 66, wherein the network entity provides access to a local area network.

74. A method as defined in claim 73, wherein the one or more registration plans (119) are associated with registering the device (114) with an external network (106a, 106b, 110, 108a, 108b) in communication with the local area network.

75. A method as defined in claim 74, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114) based on the one or more registration plans (119).

76. A method as defined in claim 66, wherein the registration information (316) includes at least one of a terms and conditions acceptance, a username, or a user identity.

77. A method as defined in claim 66, wherein each of the one or more registration plans (119) is associated with one of a time-based plan, a pay-as-you-go plan, or a free access plan.

78. An apparatus to register with an external network using an extensible authentication protocol (EAP) method, the apparatus to register comprising:

a processor (502) configured to:

receive (716), during network discovery, one or more registration plans (119) from a network entity;

select a registration plan (314) from the one or more registration plans (119); and

use the EAP method to send (724) registration information (316) associated with the device (114) to the network entity, the registration information (316) selected based on the selected registration plan (314).

79. An apparatus as defined in claim 78, wherein the network entity is an access point (104a, 104b, 104c).

80. An apparatus as defined in claim 78, wherein the EAP method is a tunneled authentication protocol.

81. An apparatus as defined in claim 78, wherein the EAP method provides an authentication framework for hotspot access of wireless networks.

82. An apparatus as defined in claim 78, wherein the processor (502) is configured to receive the one or more registration plans (119) and send the registration information (316) using a type-length-value (TLV) structure format.

83. An apparatus as defined in claim 78, wherein the processor (502) is configured to receive payment requirements and send (746) payment information responsive to the payment requirements using a type-length-value (TLV) structure format.

84. An apparatus as defined in claim 78, wherein the processor (502) is configured to receive provisioning requirements and send provisioning information responsive to the provisioning requirements using a type-length-value (TLV) structure format.

85. An apparatus as defined in claim 78, wherein the network entity provides access to a local area network.

86. An apparatus as defined in claim 85, wherein the one or more registration plans (119) are associated with registering the device (114) with an external network (106a, 106b, 110, 108a, 108b) in communication with the local area network.

87. An apparatus as defined in claim 86, wherein the external network (106a, 106b, 110, 108a, 108b) is a service provider network that operates based on subscription-based services available to the device (114) based on the one or more registration plans (119).

88. An apparatus as defined in claim 78, wherein the registration information (316) includes at least one of a terms and conditions acceptance, a username, or user identity.

89. An apparatus as defined in claim 78, wherein each of the one or more registration plans (119) is associated with one of a time-based plan, a pay-as-you-go plan, or a free access plan.

What is claimed is:

1. A method to enhance connectivity for a user device in a wireless local area network, the method comprising:

receiving a registration response at the user device, the registration response indicating one or more registration plans;

selecting, at the user device, a registration plan from the one or more registration plans;

sending registration information stored in the user device to a network entity via a data link layer, the registration information selected based on the selected registration plan; and

entering a provisioning state after sending the registration information.

2. A method as defined in claim 1 further comprising, prior to receiving the registration response at the user device, sending a registration request from the user device to the network entity.

3. A method as defined in claim 1, wherein the registration information includes at least one of a terms and conditions acceptance, a username, or a user identity.

4. A method as defined in claim 1, wherein each of the one or more registration plans is associated with one of a time-based plan, a pay-as-you-go plan, or a free access plan.

5. A method as defined in claim 1, wherein the network entity provides access to a local area network.

6. A method as defined in claim 5, wherein the one or more registration plans are associated with registering the user device with an external network in communication with the local area network.

7. A method as defined in claim 1 further comprising, during the provisioning state:

sending a provisioning request from the user device to the network entity; and

receiving, in response to the provisioning request, a provisioning status indicative of whether the user device is successfully provisioned.

8. A method as defined in claim 1, wherein the sending of the registration information stored in the user device to the network entity comprises sending the registration information using an extensible authentication protocol (EAP) method.

9. An apparatus to enhance connectivity for a user device in a wireless local area network, the apparatus comprising:

a processor configured to:

receive a registration response at the user device, the registration response indicating one or more registration plans;

select a registration plan, at the user device, from the one or more registration plans;

send registration information stored in the user device to a network entity via a data link layer, the registration information selected based on the selected registration plan; and

enter a provisioning state after sending the registration information.

10. An apparatus as defined in claim 9, wherein the network entity is an access point.

11. An apparatus as defined in claim 9, wherein the processor is configured to, prior to receiving the registration response at the user device, send a registration request from the user device to the network entity.

12. An apparatus as defined in claim 11, wherein the registration response is communicated by the network entity in response to the registration request from the user device.

13. An apparatus as defined in claim 9, wherein the processor is configured to send an identifier of the selected registration plan to the network entity in association with the registration information.

14. An apparatus as defined in claim 9, wherein the network entity provides access to a local area network.

15. An apparatus as defined in claim 14, wherein the one or more registration plans are associated with registering the user device with an external network in communication with the local area network.

16. An apparatus as defined in claim 15, wherein the external network is a service provider network that operates based on subscription-based services available to the user device based on the one or more registration plans.

17. An apparatus as defined in claim 14, wherein the local area network is a wireless local area network.

18. An apparatus as defined in claim 9, wherein the one or more registration plans are in an extensible markup language (XML) format.

19. An apparatus as defined in claim 9, wherein the processor is configured to, during the provisioning state:

send a provisioning request to the network entity; and

receive, in response to the provisioning request, a provisioning status indicative of whether the user device is successfully provisioned.

20. An apparatus as defined in claim 9, wherein the processor is configured to send the registration information stored in the user device to the network entity by sending the registration information using an extensible authentication protocol (EAP) method.