CLAIMS:

1. An inline virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a first communication interface to provide communication directly to the network router;

a second communication interface to provide communication directly to the non-cloud-ready networked printer; and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands, received through said first communication interface, from the cloud-based service, residing on the internet, to native protocols of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted native protocols to the non-cloud-ready networked printer.

2. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

3. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

4. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

5. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

6. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

7. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

8. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

9. The inline virtual printer interface node as claimed in claim 1, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

10. The inline virtual printer interface node as claimed in claim 1, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

11. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

an inline virtual printer interface node;

said inline virtual printer interface node including,

a housing,

a first communication interface to provide communication directly to said network router,

a second communication interface to provide communication directly to said non-cloud-ready networked printer, and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands, received through said first communication interface, from the cloud-based service, residing on the internet, to native protocols of said non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted native protocols to said non-cloud-ready networked printer.

12. The system as claimed in claim 11, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

13. The system as claimed in claim 11, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

14. The system as claimed in claim 11, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

15. The system as claimed in claim 11, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

16. The system as claimed in claim 11, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

17. The system as claimed in claim 11, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with said non-cloud-ready networked printer.

18. The system as claimed in claim 11, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

19. The system as claimed in claim 11, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

20. The system as claimed in claim 11, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

21. The system as claimed in claim 11, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

22. A network virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router; and

a microcontroller operatively connected to said communication interface;

said microcontroller converting commands, received through said communication interface, from the cloud-based service, residing on the internet, to native protocols of the non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted native protocols to the non-cloud-ready networked printer.

23. The network virtual printer interface node as claimed in claim 22, wherein said communication interface is a port to receive a first cable connected to the network router.

24. The network virtual printer interface node as claimed in claim 22, wherein said communication interface is a jack for plugging into a network port of the network router.

25. The network virtual printer interface node as claimed in claim 22, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

26. The network virtual printer interface node as claimed in claim 22, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

27. The network virtual printer interface node as claimed in claim 22, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

28. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

a network virtual printer interface node;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, and

a microcontroller operatively connected to said communication interface;

said microcontroller converting commands, received through said communication interface, from the cloud-based service, residing on the internet, to native protocols of said non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted native protocols to said non-cloud-ready networked printer.

29. The system as claimed in claim 28, wherein said communication interface is a port to receive a first cable connected to said network router.

30. The system as claimed in claim 28, wherein said communication interface is a jack for plugging into a network port of said network router.

31. The system as claimed in claim 28, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

32. The system as claimed in claim 28, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

33. The system as claimed in claim 28, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

34. The system as claimed in claim 28, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

35. An inline virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a first communication interface to provide communication directly to the network router;

a second communication interface to provide communication directly to the non-cloud-ready networked printer; and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands associated with a first application programming interface language, received through said first communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

36. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a port to receive a first cable connected to the network router and said second

communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

37. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

38. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

39. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

40. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

41. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

42. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

43. The inline virtual printer interface node as claimed in claim 35, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

44. The inline virtual printer interface node as claimed in claim 35, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

45. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

an inline virtual printer interface node;

said inline virtual printer interface node including,

a housing,

a first communication interface to provide communication directly to said network router,

a second communication interface to provide communication directly to said non-cloud-ready networked printer, and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands associated with a first application programming interface language, received through said first communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

46. The system as claimed in claim 45, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

47. The system as claimed in claim 45, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

48. The system as claimed in claim 45, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

49. The system as claimed in claim 45, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

50. The system as claimed in claim 45, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

51. The system as claimed in claim 45, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with said non-cloud-ready networked printer.

52. The system as claimed in claim 45, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

53. The system as claimed in claim 45, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

54. The system as claimed in claim 45, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

55. The system as claimed in claim 45, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

56. A network virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router; and

a microcontroller operatively connected to said communication interface;

said microcontroller converting commands associated with a first application programming interface language, received through said communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

57. The network virtual printer interface node as claimed in claim 56, wherein said communication interface is a port to receive a first cable connected to the network router.

58. The network virtual printer interface node as claimed in claim 56, wherein said communication interface is a jack for plugging into a network port of the network router.

59. The network virtual printer interface node as claimed in claim 56, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

60. The network virtual printer interface node as claimed in claim 56, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

61. The network virtual printer interface node as claimed in claim 56, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

62. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

a network virtual printer interface node;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, and

a microcontroller operatively connected to said communication interface;

said microcontroller converting commands associated with a first application programming interface language, received through said communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language

being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

63. The system as claimed in claim 62, wherein said communication interface is a port to receive a first cable connected to said network router.

64. The system as claimed in claim 62, wherein said communication interface is a jack for plugging into a network port of said network router.

65. The system as claimed in claim 62, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

66. The system as claimed in claim 62, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

67. The system as claimed in claim 62, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

68. The system as claimed in claim 62, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

69. An inline virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a first communication interface to provide communication directly to the network router;

a second communication interface to provide communication directly to the non-cloud-ready networked printer; and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting local area network based protocols received from the conventional non-cloud-ready printer to firewall friendly wide area network based protocols, the firewall friendly wide area network based protocols enabling the conventional non-cloud-ready printer to be able to connect to the cloud-based service.

70. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

71. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

72. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the

network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

73. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

74. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

75. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

76. The inline virtual printer interface node as claimed in claim 69, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

77. The inline virtual printer interface node as claimed in claim 69, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

78. The inline virtual printer interface node as claimed in claim 69, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

79. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

an inline virtual printer interface node;

said inline virtual printer interface node including,

a housing,

a first communication interface to provide communication directly to said network router,

a second communication interface to provide communication directly to said non-cloud-ready networked printer, and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting local area network based protocols received from the conventional non-cloud-ready printer to firewall friendly wide area network based protocols, the firewall friendly wide area network based protocols enabling the conventional non-cloud-ready printer to be able to connect to the cloud-based service.

80. The system as claimed in claim 79, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

81. The system as claimed in claim 79, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

82. The system as claimed in claim 79, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

83. The system as claimed in claim 79, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

84. The system as claimed in claim 79, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

85. The system as claimed in claim 79, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with said non-cloud-ready networked printer.

86. The system as claimed in claim 79, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

87. The system as claimed in claim 79, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

88. The system as claimed in claim 79, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

89. The system as claimed in claim 79, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer..

90. A network virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router; and

a microcontroller operatively connected to said communication interface;

said microcontroller converting local area network based protocols received from the conventional non-cloud-ready printer to firewall friendly wide area network based protocols, the firewall friendly wide area network based protocols enabling the conventional non-cloud-ready printer to be able to connect to the cloud-based service.

91. The network virtual printer interface node as claimed in claim 90, wherein said communication interface is a port to receive a first cable connected to the network router.

92. The network virtual printer interface node as claimed in claim 90, wherein said communication interface is a jack for plugging into a network port of the network router.

93. The network virtual printer interface node as claimed in claim 90, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

94. The network virtual printer interface node as claimed in claim 90, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

95. The network virtual printer interface node as claimed in claim 90, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

96. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

a network virtual printer interface node;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, and

a microcontroller operatively connected to said communication interface;

said microcontroller converting local area network based protocols received from the conventional non-cloud-ready printer to firewall friendly wide area network based protocols, the firewall friendly wide area network based protocols enabling the conventional non-cloud-ready printer to be able to connect to the cloud-based service.

97. The system as claimed in claim 96, wherein said communication interface is a port to receive a first cable connected to said network router.

98. The system as claimed in claim 96, wherein said communication interface is a jack for plugging into a network port of said network router.

99. The system as claimed in claim 96, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

100. The system as claimed in claim 96, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

101. The system as claimed in claim 96, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

102. The system as claimed in claim 96, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

103. An inline virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a first communication interface to provide communication directly to the network router;

a second communication interface to provide communication directly to the non-cloud-ready networked printer; and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

104. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

105. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

106. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

107. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

108. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

109. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

110. The inline virtual printer interface node as claimed in claim 103, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

111. The inline virtual printer interface node as claimed in claim 103, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

112. The inline virtual printer interface node as claimed in claim 103, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

113. The inline virtual printer interface node as claimed in claim 103, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

114. The inline virtual printer interface node as claimed in claim 103, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

115. The inline virtual printer interface node as claimed in claim 103, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

116. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

an inline virtual printer interface node;

said inline virtual printer interface node including,

a housing,

a first communication interface to provide communication directly to said network router,

a second communication interface to provide communication directly to said non-cloud-ready networked printer, and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

117. The system as claimed in claim 116, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

118. The system as claimed in claim 116, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

119. The system as claimed in claim 116, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

120. The system as claimed in claim 116, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

121. The system as claimed in claim 116, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

122. The system as claimed in claim 116, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with said non-cloud-ready networked printer.

123. The system as claimed in claim 116, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

124. The system as claimed in claim 116, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

125. The system as claimed in claim 116, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

126. The system as claimed in claim 116, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

127. The system as claimed in claim 116, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

128. The system as claimed in claim 116, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

129. The system as claimed in claim 116, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

130. A network virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router; and

a microcontroller operatively connected to said communication interface;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

131. The network virtual printer interface node as claimed in claim 130, wherein said communication interface is a port to receive a first cable connected to the network router.

132. The network virtual printer interface node as claimed in claim 130, wherein said communication interface is a jack for plugging into a network port of the network router.

133. The network virtual printer interface node as claimed in claim 130, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

134. The network virtual printer interface node as claimed in claim 130, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

135. The network virtual printer interface node as claimed in claim 130, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

136. The network virtual printer interface node as claimed in claim 130, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

137. The network virtual printer interface node as claimed in claim 130, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

138. The network virtual printer interface node as claimed in claim 130, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

139. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

a network virtual printer interface node;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, and

a microcontroller operatively connected to said communication interface;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

140. The system as claimed in claim 139, wherein said communication interface is a port to receive a first cable connected to said network router.

141. The system as claimed in claim 139, wherein said communication interface is a jack for plugging into a network port of said network router.

142. The system as claimed in claim 139, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

143. The system as claimed in claim 139, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

144. The system as claimed in claim 139, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

145. The system as claimed in claim 139, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

146. The system as claimed in claim 139, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

147. The system as claimed in claim 139, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

148. The system as claimed in claim 139, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

149. An inline virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a first communication interface to provide communication directly to the network router;

a second communication interface to provide communication directly to the non-cloud-ready networked printer; and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands, received through said first communication interface, from the cloud-based service, residing on the internet, to native protocols of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted native protocols to the non-cloud-ready networked printer;

said microcontroller converting commands associated with a first application programming interface language, received through said first communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

150. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

151. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

152. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

153. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

154. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

155. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

156. The inline virtual printer interface node as claimed in claim 149, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

157. The inline virtual printer interface node as claimed in claim 149, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

158. The inline virtual printer interface node as claimed in claim 149, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

159. The inline virtual printer interface node as claimed in claim 149, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

160. The inline virtual printer interface node as claimed in claim 149, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

161. The inline virtual printer interface node as claimed in claim 149, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

162. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

an inline virtual printer interface node;

said inline virtual printer interface node including,

a housing,

a first communication interface to provide communication directly to said network router,

a second communication interface to provide communication directly to said non-cloud-ready networked printer, and

a microcontroller operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands, received through said first communication interface, from the cloud-based service, residing on the internet, to native protocols of said non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted native protocols to said non-cloud-ready networked printer;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

163. The system as claimed in claim 162, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

164. The system as claimed in claim 162, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

165. The system as claimed in claim 162, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

166. The system as claimed in claim 162, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

167. The system as claimed in claim 162, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

168. The system as claimed in claim 162, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with said non-cloud-ready networked printer.

169. The system as claimed in claim 162, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

170. The system as claimed in claim 162, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

171. The system as claimed in claim 162, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

172. The system as claimed in claim 162, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

173. The system as claimed in claim 162, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

174. The system as claimed in claim 162, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

175. The system as claimed in claim 162, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

176. A network virtual printer interface node for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router; and

a microcontroller operatively connected to said communication interface;

said microcontroller converting commands, received through said communication interface, from the cloud-based service, residing on the internet, to native protocols of the non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted native protocols to the non-cloud-ready networked printer;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

177. The network virtual printer interface node as claimed in claim 176, wherein said communication interface is a port to receive a first cable connected to the network router.

178. The network virtual printer interface node as claimed in claim 176, wherein said communication interface is a jack for plugging into a network port of the network router.

179. The network virtual printer interface node as claimed in claim 176, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

180. The network virtual printer interface node as claimed in claim 176, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

181. The network virtual printer interface node as claimed in claim 176, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

182. The network virtual printer interface node as claimed in claim 176, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

183. The network virtual printer interface node as claimed in claim 176, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

184. The network virtual printer interface node as claimed in claim 176, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

185. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer;

a network router; and

a network virtual printer interface node;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, and

a microcontroller operatively connected to said communication interface;

said microcontroller converting commands, received through said communication interface, from the cloud-based service, residing on the internet, to native protocols of said non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted native protocols to said non-cloud-ready networked printer;

said microcontroller polling the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node;

said microcontroller registering the created authentication code with the cloud-based service.

186. The system as claimed in claim 185, wherein said communication interface is a port to receive a first cable connected to said network router.

187. The system as claimed in claim 185, wherein said communication interface is a jack for plugging into a network port of said network router.

188. The system as claimed in claim 185, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

189. The system as claimed in claim 185, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

190. The system as claimed in claim 185, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

191. The system as claimed in claim 185, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

192. The system as claimed in claim 185, wherein said identification information associated with the non-cloud-ready networked printer is a media access control address.

193. The system as claimed in claim 185, wherein said identification information associated with the inline virtual printer interface node is a media access control address.

194. The system as claimed in claim 185, wherein said microcontroller polls, in response to an authentication request form the cloud based-service, the non-cloud-ready networked printer to retrieve identification information associated with the non-cloud-ready networked printer;

said microcontroller creating an authentication code based on the authentication request triggered identification information retrieved from the non-cloud-ready networked printer and identification information associated with the non-cloud-ready networked printer associated with the inline virtual printer interface node.

CLAIMS:

1. An inline virtual printer interface node, residing in a local area network, for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, residing in the local area network, through to a network router, comprising:

a housing;

a first communication interface to provide communication directly to the network router, via the local area network;

a second communication interface to provide communication directly to the non-cloud-ready networked printer, via the local area network; and

a microcontroller that is disposed inside the housing and that is operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands, received through said first communication interface, from the cloud-based service, residing on the internet, to native protocols of the non-cloud-ready networked printer, said microcontroller communicating, through said second communication interface, the converted native protocols to the non-cloud-ready networked printer.

2. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

3. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

4. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a port to receive a second cable connected to the non-c1oudready networked printer.

5. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

6. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

7. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

8. The inline virtual printer interface node as claimed in claim 1, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

9. The inline virtual printer interface node as claimed in claim 1, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

10. The inline virtual printer interface node as claimed in claim 1, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

11. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer, residing in a local area network;

a network router; and

an inline virtual printer interface node, residing in the local area network;

said inline virtual printer interface node including,

a housing,

a first communication interface to provide communication directly to said network router, via the local area network,

a second communication interface to provide communication directly to said non-cloud-ready networked printer, via the local area network, and

a microcontroller that is disposed inside the housing and that is operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands, received through said first communication interface, from the cloud-based service, residing on the internet, to native protocols of said non-cloud-ready networked printer,

said microcontroller communicating, through said second communication interface, the converted native protocols to said non-cloud-ready networked printer.

12. The system as claimed in claim 11, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

13. The system as claimed in claim 11, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

14. The system as claimed in claim 11, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

15. The system as claimed in claim 11, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

16. The system as claimed in claim 11, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

17. The system as claimed in claim 11, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with said non-cloud-ready networked printer.

18. The system as claimed in claim 11, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

19. The system as claimed in claim 11, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

20. The system as claimed in claim 11, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which I proxied through the cloud-based service for remote device interaction.

21. The system as claimed in claim 11, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

22. A network virtual printer interface node, residing in a local area network, for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, residing in the local area network, through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router, via the local area network; and

a microcontroller that is disposed inside the housing and that is operatively connected to said communication interface;

said microcontroller converting commands, received through said communication interface, from the cloud-based service, residing on the internet, to native protocols of the non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted native protocols to the non-cloud-ready networked printer.

23. The network virtual printer interface node as claimed in claim 22, wherein said communication interface is a port to receive a first cable connected to the network router.

24. The network virtual printer interface node as claimed in claim 22, wherein said communication interface is a jack for plugging into a network port of the network router.

25. The network virtual printer interface node as claimed in claim 22, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

26. The network virtual printer interface node as claimed in claim 22, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

27. The network virtual printer interface node as claimed in claim 22, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

28. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer, residing in a local area network;

a network router; and

a network virtual printer interface node, residing in the local area network;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, via the local area network, and

a microcontroller that is disposed inside the housing and that is operatively connected to said communication interface;

said microcontroller converting commands, received through said communication interface, from the cloud-based service, residing on the internet, to native protocols of said non-cloud-ready networked printer;

said microcontroller communicating, through said communication interface, the converted native protocols to said non-cloud-ready networked printer.

29. The system as claimed in claim 28, wherein said communication interface is a port to receive a first cable connected to said network router.

30. The system as claimed in claim 28, wherein said communication interface is a jack for plugging into a network port of said network router.

31. The system as claimed in claim 28, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

32. The system as claimed in claim 28, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

33. The system as claimed in claim 28, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

34. The system as claimed in claim 28, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

35. An inline virtual printer interface node, residing in a local area network, for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, residing in the local area network, through to a network router, comprising:

housing;

a first communication interface to provide communication directly to the network router, via the local area network;

a second communication interface to provide communication directly to the non-cloud-ready networked printer, via the local area network; and

a microcontroller that is disposed inside the housing and that is operatively connected between said first communication interface and said
second communication interface;

said microcontroller converting commands associated with a first application programming interface language, received through said first communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

36. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a port to receive a first cable connected to the network router and said second

communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

37. The inline virtual printer interface node as claimed in claim 35. wherein said first communication interface is a port to receive a first cable connected to the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

38. The inline virtual printer interface node as claimed in claim 35. wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

39. The inline virtual printer interface node as claimed in claim 35. wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router and said second communication interface is a jack for plugging into a network port of the non-cloud-ready networked printer.

40. The inline virtual printer interface node as claimed in claim 35. wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a port to receive a second cable connected to the non-cloud-ready networked printer.

41. The inline virtual printer interface node as claimed in claim 35. wherein said first communication interface is a jack for plugging into a network port of the network router and said second communication interface is a transmitter/receiver to create a wireless communication channel with the non-cloud-ready networked printer.

42. The inline virtual printer interface node as claimed in claim 35, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

43. The inline virtual printer interface node as claimed in claim 35, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

44. The inline virtual printer interface node as claimed in claim 35, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

45. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer, residing in a local area network;

a network router; and

an inline virtual printer interface node, residing in the local area network;

said inline virtual printer interface node including,

housing,

a first communication interface to provide communication directly to said network router, via the local area network,

a second communication interface to provide communication directly to said non-cloud- ready networked printer, via the local area network, and

a microcontroller that is disposed inside the housing and that is operatively connected between said first communication interface and said second communication interface;

said microcontroller converting commands associated with a first application programming interface language, received through said first communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer;

said microcontroller communicating, through said second communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

46. The system as claimed in claim 45, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

47. The system as claimed in claim 45, wherein said first communication interface is a port to receive a first cable connected to said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

48. The system as claimed in claim 45, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

49. The system as claimed in claim 45, wherein said first communication interface is a transmitterlreceiver to create a wireless communication channel with said network router and said second communication interface is a jack for plugging into a network port of said non-cloud-ready networked printer.

50. The system as claimed in claim 45, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a port to receive a second cable connected to said non-cloud-ready networked printer.

51. The system as claimed in claim 45, wherein said first communication interface is a jack for plugging into a network port of said network router and said second communication interface is a transmitter/receiver to create a wireless communication dhannel with said non-cloud-ready networked printer.

52. The system as claimed in claim 45, wherein said first communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

53. The system as claimed in claim 45, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

54. The system as claimed in claim 45, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

55. The system as claimed in claim 45, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

56. A network virtual printer interface node, residing in a local area network for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, residing in the local area network, through to a network router, comprising:

a housing;

a communication interface to provide communication directly to the network router, via the local area network, and

a microcontroller operatively connected to said communication interface;

said microcontroller that is disposed inside the housing and that is converting commands associated with a first application programming
interface language, received through said communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language being different from the native application programming interface language of the non-cloud-ready networked printer,

said microcontroller communicating, through said communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

57. The network virtual printer interface node as claimed in claim 56, wherein said communication interface is a port to receive a first cable connected to the network router.

58. The network virtual printer interface node as claimed in claim 56, wherein said communication interface is a jack for plugging into a network port of the network router.

59. The network virtual printer interface node as claimed in claim 56, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with the network router.

60. The network virtual printer interface node as claimed in claim 56, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

61. The network virtual printer interface node as claimed in claim 56, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.

62. A system for providing communication between a cloud-based service, residing on an internet, and a non-cloud-ready networked printer, comprising:

a non-cloud-ready networked printer, residing in a local area network;

a network router; and

a network virtual printer interface node, residing in the local area network;

said network virtual printer interface node including,

a housing,

a communication interface to provide communication directly to said network router, via the local area network, and

a microcontroller that is disposed inside the housing and that is operatively connected to said communication interface; said microcontroller converting commands associated with a first application programming interface language, received through said communication interface, from the cloud-based service, residing on the internet, to commands associated with a native application programming interface language of the non-cloud-ready networked printer, the first application programming interface language

being different from the native application programming interface language of the non-cloud-ready networked printer,

said microcontroller communicating, through said communication interface, the converted commands associated with the native application programming interface language of the non-cloud-ready networked printer.

63. The system as claimed in claim 62, wherein said communication interface is a port to receive a first cable connected to said network router.

64. The system as claimed in claim 62, wherein said communication interface is a jack for plugging into a network port of said network router.

65. The system as claimed in claim 62, wherein said communication interface is a transmitter/receiver to create a wireless communication channel with said network router.

66. The system as claimed in claim 62, wherein said non-cloud-ready networked printer includes scanning, copying, and printing functionality.

67. The system as claimed in claim 62, wherein said microcontroller executes a web server application to provide administration, interaction, reporting, and control from a browser which is proxied through the cloud-based service for remote device interaction.

68. The system as claimed in claim 62, wherein said microcontroller gates services provided by the non-cloud-ready networked printer in response to restrictions communicated from the cloud-based service to the non-cloud-ready networked printer.