CLAIMS

What is claimed is:

1. A system for application-less communication, the system comprising:

an Internet-of-things backend system comprising IOT devices that implement proximity and physical web discovery services and implement a modified short-range wireless communication protocol stack for communicating with communication devices at a kernel level; and

each of the communication devices receiving messages from the Internet-of-things backend system over a short-range wireless connection, the messages are presented to the communication devices without an application being installed on the communication devices, and by using kernel level services of the communication devices, the modified short-range wireless communication protocol stack is selectively configured by the IOT devices based on a short-range wireless protocol that is active on the each of the communication devices.

2. The system according to claim 1, wherein the short-range wireless connection is created when a communication device is in short-range proximity to at least a portion of the Internet-of-things backend system.

3. The system according to claim 1, wherein at least a portion of the communication devices use a different short-range wireless protocol than one another.

4. The system according to claim 1, wherein the proximity and physical web discovery services implement an open systems interconnect reference model stack.

5. The system according to claim 4, wherein the Internet-of-things backend system communicates with proximity and physical web discovery services at a kernel level.

6. The system according to claim 5, wherein the Internet-of-things backend system is further configured to interact with the kernel level services of acommunication device including any of fax, print, phone, video, audio, or communications features of the communication device.

7. The system according to claim 1, wherein the Internet-of-things backend system is further configured to push offers to a communication device over the short-range wireless connection by the Internet-of-things backend system using the modified short-range wireless communication protocol stack in such a way that the communication device does not require an application to receive or display the offers.

8. The system according to claim 1, wherein the Internet-of-things backend system is further configured to:

identify a presence of a communication device when the communication device is proximate an IOT device of the Internet-of-things backend system;

identify one or more communication protocols being used by the communication device;

replicate the one or more communication protocols at the IOT device; and

push a notification to the communication device that comprises a URL or file.

9. The system according to claim 8, wherein the Internet-of-things backend system is further configured to deliver a first offer to the communication device if the communication device is registered with the Internet-of-things backend system, otherwise deliver a second offer to the communication device if the communication device is not registered with the Internet-of-things backend system.

10. The system according to claim 9, wherein the Internet-of-things backend system is further configured to store a low level protocol log file that comprises personal information for a user of the communication device and locations that the communication device has visited.

11. The system according to claim 10, wherein the communication device is configured to store one or more notifications provided by the Internet-of-things backend system in temporary storage for later retrieval.

12. The system according to claim 11, wherein the one or more notifications are linked to a fingerprint of the communication device.

13. The system according to claim 1, wherein the Internet-of-things backend system comprises IOT devices that comprise short-range wireless scanners that log short-range wireless interactions with the communication devices.

14. A method, comprising:

communicating at a kernel level with a communication device over a short-range wireless connection using a modified short-range wireless communication protocol stack implemented by an Internet-of-things (IOT) device of an Internet-of-things backend system;

selectively configuring the protocol stack, by the IOT device of the Internet-of-things backend system, based on a short-range wireless protocol that is active on the communication device;

reading, by the IOT device of the Internet-of-things backend system, a low-level protocol log file stored on the communication device when the communication device is in short-range wireless communication proximity to the IOT device; and

transmitting a message to the communication device using the short-range wireless protocol, wherein the message can be displayed on the communication device without an application being installed on the communication device, wherein the message has content that is based on the low-level protocol log file.

15. The method according to claim 14, wherein the Internet-of-things backend system comprises proximity and physical web discovery services that communicates with the communication devices, wherein the proximity and physical web discovery services implement an open systems interconnect reference model stack.

16. The method according to claim 15, further comprising the IOT device communicating with the proximity and physical web discovery services at a kernel level.

17. The method according to claim 16, further comprising the IOT device interacting with kernel level services of the communication device including any of fax, print, phone, video, audio, or communications features of the communication device.

18. The method according to claim 16, wherein the IOT device is further configured to push offers to the communication device over the short-range wireless connection using the modified short-range wireless communication protocol stack in such a way that the communication device does not require an application to receive or display the offers.

19. The method according to claim 14, wherein selectively configuring the protocol stack being based on a short-range wireless protocol that is active on the communication device comprises:

identifying one or more communication protocols being used by the communication device;

replicating the one or more communication protocols at the IOT device; and

pushing a notification to the communication device that comprises a URL or file.

20. A method, comprising:

establishing a short-range wireless connection between an Internet-of-things (IOT) device and a communication device;

selectively configuring a modified short-range wireless communication protocol stack of the IOT device based on a short-range wireless protocol that is identified by the IOT device as being active on the communication device, the

protocol stack implemented for communicating with the communication device at a kernel level; and

configuring a message for presentation on the communication device, wherein the message is presented using a kernel level service of the communication device.

21. A system for application-less communication, the system comprising:

an Internet-of-things backend system comprising:

IOT devices that:

implement proximity and physical web discovery services; and

implement a modified short-range wireless communication protocol stack for communicating with communication devices at a kernel level and delivering notifications at the kernel level of the communication devices;

each of the communication devices being configured to:

implement a passport or a wallet for receiving the notifications from the Internet-of-things backend system over a short-range wireless connection, the notifications are presented to the communication devices without an application being installed on the communication devices, each of the communication devices being further configured to:

receive an indication that a button on the communication device has been activated;

generate a message based on the button activation; and

transmit the message to one or more additional communications devices through the IOT devices of the Internet-of-things backend system,

the one or more additional communications devices being similarly configured with the passport or the wallet.

22. The system according to claim 21, wherein the short-range wireless connection is created when at least a portion of the communication devices are in short-range proximity to at least a portion of the Internet-of-things backend system.

23. The system according to claim 21, wherein at least a portion of the communication devices use a different short-range wireless protocol than one another.

24. The system according to claim 21, wherein the proximity and physical web discovery services implement an open systems interconnect reference model stack.

25. The system according to claim 24, wherein the Internet-of-things backend system communicates with proximity and physical web discovery services at a kernel level.

26. The system according to claim 25, wherein the Internet-of-things backend system is further configured to interact with kernel level services of at least a portion of the communication devices including any of fax, print, phone, video, audio, or communications features of the at least a portion of communication devices.

27. The system according to claim 21, wherein the Internet-of-things backend system is further configured to push offers to at least a portion of the communication devices over the short-range wireless connection by the Internet-of-things backend system using the modified short-range wireless communication protocol stack in such a way that the at least a portion of the communication devices does not require an application to receive or display the offers.

28. The system according to claim 21, wherein the communication devices are configured to store the notifications provided by the Internet-of-things backend system in temporary storage for later retrieval.

29. The system according to claim 28, wherein the notifications are linked to a fingerprint of the communication devices.

30. The system according to claim 21, wherein the Internet-of-things backend system comprises IOT devices that comprise short-range wireless scanners that log short-range wireless interactions with the communication devices.