

We claim :

1. An apparatus for Internet of Things (IoT) communication, comprising:
 - a provisioning service including one or more devices, the devices including at least one memory adapted to store run-time data for the devices, and at least one processor that is adapted to execute processor-executable code that, in response to execution, enables the provisioning service to perform actions, including:
 - receiving an identification message, wherein the identification message includes information that is associated with identification of a first IoT device;
 - validating the first IoT device;
 - making a determination of an IoT hub from a plurality of IoT hubs to be associated with the first IoT device based at least in part on the identification message;
 - and
 - causing a registration of the first IoT device with the determined IoT hub.
2. The apparatus of claim 1, wherein causing the registration of the first IoT device with the selected IoT hub includes sending a registration request to the determined IoT hub.
3. The apparatus of claim 1, wherein the identification information includes a device identification associated with the first IoT device and geographical information associated with the first IoT device.
4. The apparatus of claim 1, wherein validating the first IoT device includes at least one of: checking a device identification in the identification information against an enrollment list, validating a mobile provisioning application (MP A) connection from which the identification information was received, validating a cloud-to-cloud identity attester connection from which the identification information was received, or validating a certificate in the identification information.
5. The apparatus of claim 1, wherein the action of making the determination of the IoT hub from the plurality of IoT hubs is based on routing rules, wherein the identification information includes a geographical location of the first IoT device, and wherein the action of making the determination of the IoT hub from the plurality of IoT hubs is based, in part, on the geographical location of the first IoT device.
6. The apparatus of claim 1, wherein the actions further include :
 - receiving cryptographic information from the IoT hub.
7. The apparatus of claim 6, wherein the actions further include :
 - sending the cryptographic information to the first IoT device.

8. The apparatus of claim 6, wherein the cryptographic information includes connectivity information associated with the first IoT device connecting to the determined IoT hub.
9. A method for Internet of Things (IoT) communication, comprising:
 - receiving an identification message that includes information associated with identification of a first IoT device;
 - verifying validity of the first IoT device;
 - based at least in part on the identification message, selecting an IoT hub from a plurality of IoT hubs; and
 - causing the first IoT device to be registered with the selected IoT hub.
10. The method of claim 9, wherein causing the first IoT device to be registered with the selected IoT hub includes sending a registration request to the selected IoT hub.
11. The method of claim 9, wherein the identification information includes a device identification associated with the first IoT device and geographical information associated with the first IoT device.
12. The method of claim 9, wherein verifying validity of the first IoT device includes at least one of: checking a device identification in the identification information against an enrollment list, validating a mobile provisioning application (MP A) connection from which the identification information was received, validating a cloud-to-cloud identity attester connection from which the identification information was received, or validating a certificate in the identification information.
13. The method of claim 9, wherein selecting the IoT hub from the plurality of IoT hubs is based on routing rules, wherein the identification information includes a geographical location of the first IoT device, and wherein selecting the IoT hub from the plurality of IoT hubs is based, in part, on the geographical location of the first IoT device.
14. The method of claim 9, further comprising:
 - receiving cryptographic information from the IoT hub.
15. The method of claim 14, further comprising :
 - sending the cryptographic information to the first IoT device.
16. The method of claim 14, wherein the cryptographic information includes connectivity information associated with the first IoT device connecting to the selected IoT hub.
17. An apparatus for Internet of Things (IoT) communication, comprising :
 - an IoT hub including one or more devices, the devices including at least one memory adapted to store run-time data for the devices, and at least one processor that is

adapted to execute processor-executable code that, in response to execution, enables the IoT hub to perform actions, including :

creating a device registry;

receiving a request to register a first IoT device from a provisioning service, based on network communications between the provisioning service and the IoT hub, such that a hostname of the provisioning service is a second hostname, the hostname of the IoT hub is the first hostname, and such that the second hostname is different from the first hostname;

adding the first IoT device to the device registry; and

transmitting cryptographic information associated with the first IoT device.

18. The apparatus of claim 17, wherein the cryptographic information includes connectivity information associated with the first IoT device connecting to the IoT hub.

19. The apparatus of claim 17, wherein the device registry is at least one of a device identity registry, a device management registry, a device identity registry and a device management registry, or a combined device registry.

20. The apparatus of claim 17, the actions further including causing metadata stored in the first IoT device to be synced with metadata stored in the IoT hub via device management syncing.