

CLAIMS

1. A method for providing subscriber data from a first service provider network to a content provider external to the service provider network, the method comprising:
 - 5 receiving a first network identifier sent from a subscriber device that is authenticated to communicate over the first service provider network, wherein the first network identifier is sent by the subscriber device in a first message to an entity outside of the service provider network;
 - receiving a second network identifier sent from the subscriber device to the
10 first service provider network;
 - performing a verification process using the first network identifier and the second network identifier to verify whether it is permissible for subscriber data stored at the service provider network to be provided to the content provider external to the service provider network; and
 - 15 providing, in response to the verification process being successful, the subscriber data to an entity that is external to the service provider network.
2. The method according to claim 1, wherein the first network identifier is un-
20 accessible, in the first message, by the first service provider network.
3. The method according to claim 1 or claim 2, wherein the subscriber data is provided in response to a request, originating from the content provider, for subscriber data, wherein the request from the content provider is made due to the first network message sent by the subscriber device.
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4. The method according to any of claims 1 to 3, wherein the entity external to the first service provider network which receives the first message from the subscriber device is a first entity, and the method comprises:
 - receiving, from the first service provider network, the second network
30 identifier at a further entity outside of the first service provider network; and
 - receiving the first network identifier at the further entity;

wherein the verification process is performed by the further entity, and wherein the further entity provides the subscriber data to an entity that is external to the service provider network in response to the verification process being successful.

5 5. The method according to any of claims 1 to 3, comprising:
receiving at the first service provider network, the first network identifier; and
wherein the verification process is performed within the first service provider
network, and the first service provider network provides the subscriber data stored at
the first service provider network to an entity that is external to the service provider
10 network in response to the verification process being successful.

6. The method according to any of claims 1 to 5, wherein the subscriber data
provided to the entity external to the service provider network is anonymised.

15 7. The method of any one of claims 1 to 6, wherein each network identifier
comprises a random fixed-length string that is inserted into an application protocol
request.

8. The method according to any of claims 1 to 7, comprising:
20 determining, by the first service provider network, a subscriber identifier for
the subscriber using network data that is accessible within the service provider
network; and
using the subscriber identifier to retrieve the subscriber data from at least one
data storage accessible to the service provider network.

25 9. The method according to claim 8, wherein the first service provider network
comprises a first entity within the first service provider network and a second entity
within the first service provider network, wherein:
receiving, at the first service provider network, the second network identifier,
30 comprises receiving the second network identifier at the first entity within the service
provider network, wherein the first entity within the service provider network
determines the subscriber identifier; and wherein the method comprises:

sending from the first entity within the service provider network to the second entity within the service provider network the second network identifier and the subscriber identifier; and

retrieving, by the second entity within the service provider network, the subscriber data from the at least one data storage using the subscriber identifier.

10. The method according to claim 9 wherein the second network identifier and the subscriber identifier are sent from the first entity to the second entity in an internet content application protocol (ICAP) request, an HTTP request, an HTTPS request, or a user datagram protocol (UDP) request.

11. A method for receiving content at a subscriber device that is authenticable to communicate over a first service provider network, the method comprising, at the subscriber device:

generating a first network identifier and a second network identifier;
sending a first message comprising the first network identifier to an entity outside of the service provider network;
sending the second network identifier to the first service provider network;
receiving, at the subscriber device, a network response from the entity outside of the service provider network, wherein the network response includes content included in the network response in dependence upon subscriber data from the service provider network having been provided to a content provider external to the first service provider network in response to the first network identifier and the second network identifier having been used in a process that verifies that it is permissible for the subscriber data to be provided to the content provider.

12. The method according to claim 11 wherein the first network identifier is un-accessible, in the first message, by the first service provider network.

13. The method according to claim 11 or claim 12, wherein the first network identifier is sent to the entity outside of the first service provider network via a secure

communications channel between the subscriber device and the entity outside of the first service provider network.

14. The method according to any of claims 11 to 13 wherein the second network
5 identifier is sent via a secure communications channel between the subscriber device and the first service provider network.

15. The method according to any of claims 11 to 14 wherein the second network
10 identifier is sent in a second message comprising the second network identifier.

16. The method according to claim 15 wherein the second network request is a
synchronisation request to request synchronising of the processing of network
requests by the service provider network.

17. The method according to any of claims 11 to 16 wherein the first network
15 request is a network request for an advertisement to be supplied via the entity external to the first service provider network.

18. The method according to any of claims 11 to 17 wherein the first network
20 request is an HTTPS network request.

19. The method according to any of claims 15 to 18 wherein the second network
request is an HTTPS network request.

20. A set of machine-readable instructions which when executed by an apparatus
25 cause the apparatus to perform a method according to any of claims 1 to 10

21. A set of machine-readable instructions which when executed by a subscriber
device cause the device to perform a method according to any of claims 11 to 19.

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22. A non-transitory computer readable medium comprising a set of computer-
readable instructions according to claim 20 or according to claim 21 stored thereon.

23. Apparatus configured to perform a method according to any of claims 1 to 10.
24. A subscriber device comprising a set of machine-readable instructions
5 according claim 21.
25. The apparatus of claim 23 or the subscriber device of claim 24, wherein the
first service provider network comprises one or more of:
- 10 a carrier network;
a mobile network;
a cellular network; and
an internet service provider network.