MSISDN Enrichment

Description
This instruction describes the technical details of http header enrichment i.e. MSISDN forwarding, the restrictions to use it and how to test the service.

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1 HTTP header enrichment (MSISDN forwarding)

1.1 DNS Configurations and Header format

Telia Finland Oyj's (later Telia) system adds and transfers the end user's MSISDN to service application in "X-UP-CALLING-LINE-ID" HTTP header field. Telia adds the MSISDN not earlier than the end user is entering payment session. The MSISDN in header is shown as "x-up-calling-line-id: 35840123456". **MSISDN is encrypted**. Customer is provided with a secret key, which is used for decrypting the encrypted MSISDN.

For transmitting the parameter, the customer needs to indicate URL of payment session. The form of URL has to be as follow and it **MUST end with /service/pay**

http://Service-provider-domain/**service/pay**

For example, the following URLs are applicaple

> http://www.service-provider.com/service/pay

> http://www.service-provider.com/service/pay/telia

The payment session has to follow the special rules for Mobiilimaksu set by MAPEL (see 25§ Mobiilimaksu ("Mobilepayment") at http://www.mapel.fi/set_of_norms_in_english/). Whenever a question of interpretation is raised the Finnish translation shall prevail.

Note! The service TCP port must be 80 (default).

Note! Telia adds the MSISDN to the header first in the header row. Service Provider shall start the parsing from the first header and only take into account the first one.

Example of the header:

Host: m.servicedomain.fi/

Connection: Close

User agent: Vendor X/1.0 (3,02).

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x-up-calling-line-id: *A5g52gdVbfd3tdK*   <- "an example of the encrypted MSISDN"

Note! Encrypted MSISDN can be decrypted with following command:

echo "encrypted msisdn"| openssl enc -d -base64 -rc4 -nosalt -pass pass:secretkey

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1.2 IP Configurations

Telia's header enriched traffic is coming from the following IP-ranges/IP-addresses which need to be allowed in the Service Provider's firewall:

IP-address range (updated 28th April 2020):

46.132.0.0/18
46.132.64.0/18

86.115.64.0/18
86.115.128.0/18

93.106.0.0/16
109.240.0.0/16

176.72.0.0/18
176.72.64.0/18

188.238.0.0/16

Note! Service works on following APN: Telia Fi (or "internet", if APN manually configured).

Note! Do not allow or take into account "x-up-calling-line-id" –headers which are coming from other IP-addresses than described above!

Note! If for some reason the x-up-calling-line-id contains more than one MSISDN, accept only the first number and displace all the others after the first ',' mark

2 Testing the HTTP header enrichment (MSISDN forwarding)

After Service Provider has informed Telia about payment session url(s) and Telia has informed Service Provider that it is ok to test.

Service Provider: Test the service with several terminals and check if the "x-up-calling-line-id" header is shown.

If the header is shown 'HTTP header enrichment test is concluded and please continue to Mobile Charger tests for end user charging.

If the header is not shown:

– Check that the domain (and port 80) is valid and same as informed to Telia.
– Check that traffic is coming from the Telia's IP-addresses mentioned previously on the document.
– Browse to http://m.tele.fi/mtelefi/layout/checker/whatis.php with the mobile phones browser you're using for testing. You should see a page displaying your encrypted MSISDN and the source IP. To use this test site the test phone must have a Telia SIM. If the MSISDN is not shown, check your phone APN settings - the active access point should be Telia FI internet (or "internet")
– Inform Telia that header is not shown. Telia checks its configuration and informs again when ready to test.

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– Repeat the test until the header is shown.

3 Restrictions

Proxy solutions breaking the HTTP Header - e.g. Google lite mode which can be activated Chrome browser / application is not compatible with HTTP HE due to using proxy. Customers must be guided not to use or to be aware of this limitation.