# GSMA Network Setting Exchange
# MNO / MVNO Q&A

*If you would like further information / advice, please email nsx@gsma.com*

**How is the uptake/usage of the GSMA Network Settings Exchange so far and what is the quality of data available?**

There are currently (June 2020) 250 device manufacturers registered in GSMA Network Settings Exchange, representing around 90% of the world's device production and 47 mobile network operators and mobile virtual network operators.

The quality of the data is high due to the GSMA Network Settings Exchange using the standardised settings form created in the Terminal Steering Group.

**How timely are MNO updates propagated with the OEMs?**

When MNOs upload their settings in the first instance, or provide subsequent updates of one or more parameters, all the subscribed OEMs receive an instant email notification to prompt action. A web notification is also set on their GSMA Network Settings Exchange dashboard.

There can be up to a 4-hour time delay only on the initial set up of an MNO in the Exchange. This is because once the date has been uploaded for the first time the Exchange processes quality control checks to all the uploaded data to make sure it is correctly set up.

**How can you leverage the power of big data analytics?**

MNOs are constantly examining their networks and expanding their data points every day as they come to understand their networks and the devices on their networks more and more. The GSMA Network Settings Exchange can help analyse network factors such as performance, capacity, and what technology to use in a specific network. Tuning devices for a better network usage translates into better ROI.

**What are the mechanism(s) used to update the devices already live in the field?**

OEMs can utilise their configuration servers to issue new or updated device settings to distribute the MNO/MVNO device settings to their devices already in the field. The configuration servers utilise an OTA proxy when available or when the device is connected to a Wi-Fi network.

Questions received from MNO / MVNO community re NSX WebTalks June 2020 v1.0

**Are main vendors like Samsung using GSMA Network Settings Exchange to enable VoLTE for example in their terminals?**

Participating OEMs have provided feedback and submitted requirements with a view to guaranteeing the best experience for their own customers, VoLTE being one of the services they wish to be covered. VoLTE is indeed a setting or parameter covered by in GSMA Network Settings Exchange and today Samsung is signed up and using the service.

**Can IoT devices be configured with this service as well?**

Yes, they can. IoT is an ever-growing industry and GSMA Network Settings Exchange can support these devices, for example when it comes to radio and memory settings.

**During our LTE roaming outbound deployment we noticed that different operators/nw vendors have different approaches about ODB and Roaming Restriction support. Are you considering to share this type of information?**

GSMA Network Settings Exchange can support a great complexity of scenarios and different configurations in IP comms, IMS, VoLTE, ViLTE or RCS. This support is evolving. The more support we receive from the MNO community, the more the GSMA will be able to understand the different network requirements, including roaming. We are seeing some of the existing settings supported by GSMA Network Settings Exchange can help the roaming experience and we will always be open to expanding the attributes to incorporate any which will directly improve the customer experience.

**MNO uses OTA platform to manage settings and can we not manage setting update using OTA for 5G as well?**

GSMA Network Settings Exchange flips this issue on its head, instead of the MNO having to update its DMS for every OEM device, 5G or otherwise with this new platform the operator only has to provide its network settings once for all the OEMs to download.

**Is there any proposed evolution for the setting to be defined for RACS Parameter Provisioning?**

Based on RCS Parameter Provisioning, the database supports the updated of FDQN and RCS Provisioning Server address, so the full provisioning of RCS can be done.

**Is Apple also on-board?**

Apple have contributed to the settings we have in the database including which parameters can be constant and which need to be variable per operator. We are in discussions with them as they have indicated they will be participating. As more and more, MNOs and OEMs come onboard we believe it will be less tenable for Apple to sit outside.

**The cost of this service is a barrier for many MNOs to adopt. Why was it decided that MNOs need to pay for this instead of it being a benefit to GSMA members perhaps.**

Not all operators will use this service and therefore it is fairer for those that use the service to be directly responsible for contributing to its cost. We believe the annual pricing represents value for money when you consider this service:

- Enables MNO/MVNs network settings to be instantly made available to a significant proportion of the devices seen on their networks
- Through this service there is now a standardised way of collating the settings which everyone understands
- Data is held in a secure location which is easy to maintain
- OMD can now work to their full potential and deliver a quality end user experience on your network
- Your participation will decrease complaints to call centres

**Apart from parameters defined for VoLTE for example, OEM will have to activate firmware on their devices to activate VoLTE. From the discussions we had with them, Network Settings are not sufficient to enable VoLTE on their devices**

Yes, it is regrettable some OEMs have decided to restrict the use of firmware modules / clients e.g. VoLTE to ensure the performance (by a level of network testing) of the module / client to the operators network.

However, we believe industry participation in GSMA Network Settings Exchange will shorten the timeframe and discussion with OEMs to unbar the firmware as the settings are presented in a standardised and agreed format and within variable bounds, i.e. operator networks can be initially setup to be consistent and to make the module / client provide the best customer experience.

**Next to settings, is there also room for network configuration like frequency-bands + bandwidths, supported CA and EN-DC combinations, so that the device can be correctly configured for DL-CA en UL-CA?**

The GSMA will shortly begin obtaining the bandwidth and performance details related to frequency bands directly from the OEMs upon allocation of TAC (Type Allocation Code). The GSMA Network Settings Exchange file upload template has a supplementary section where MNOs can include additional details if they wish.

**How are device manufacturers encouraged to support MVNO's APN settings? Are they obliged? I'm worried it might happen there are quite few manufacturers that embed our settings on their products after we pay a lot of money to onboard this program.**

GSMA is in regular contact with all of the active Device Manufactures through the process of TAC allocation and Network Settings Exchange. GSMA have and will continue to provide best practice guidelines to the OEMs and ongoing communications to drive the most adoption of MNO/MVNO settings provided. As we see 2G and 3G networks get closer to closing access to these settings will become more and more business critical.

**Could you please flick through the other network settings tabs to give us an idea of the settings we can enter?**

Find the full listing of all settings and descriptions for each of the settings by visiting this link.

**Why do Operators have to pay to upload the settings, but the OEMs do not have to for downloading them please?**

Prior to launch it was essential that we had the majority of OEMs already engaged ready to accept the operator settings. Therefore, the decision was made to apply zero charges for the service to expedite them joining.