



# Device Settings Database

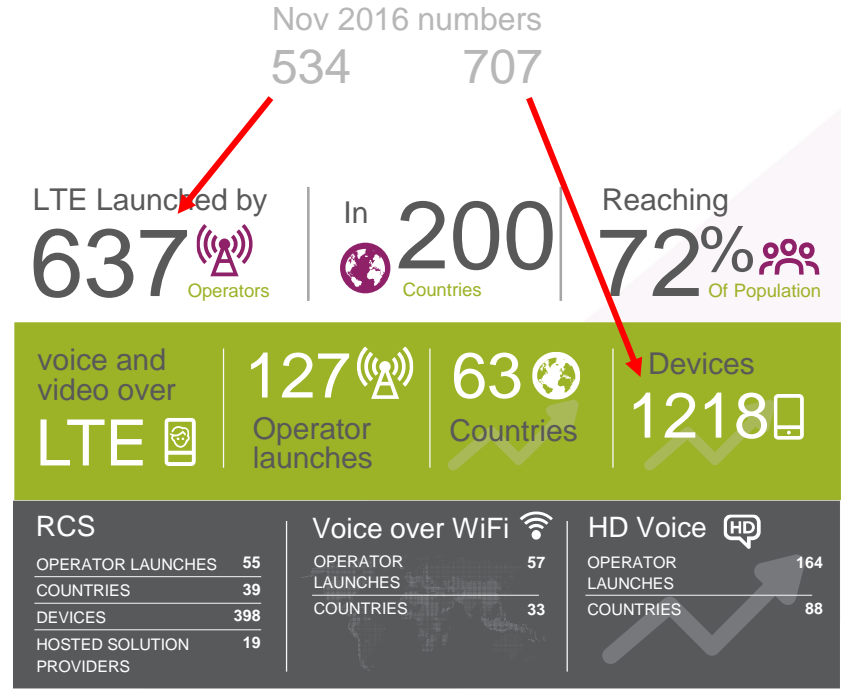
07.12.2017





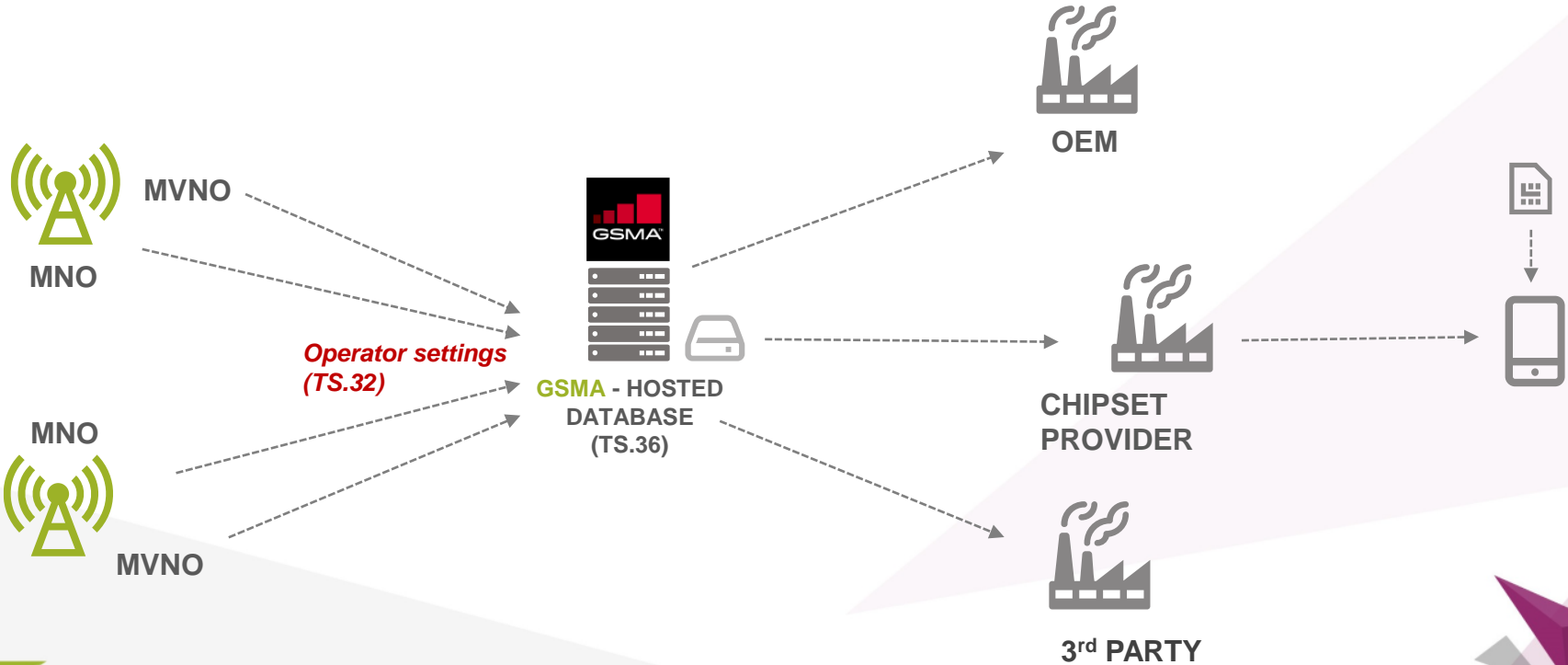
# Issues

- Open Market Devices > 60% of devices shipped.
- VoLTE / ViLTE launches are increasing;
  - making device configuration a major issue
  - driving up operational costs due to non-centralised individual approaches
- Not only IMS settings, even radio settings can be difficult to distribute for small operators and MVNOs.
- It is a costly operation for device manufacturers to establish and maintain a sustainable approach to collect the settings from 800+ operators and 1500+ MVNOs globally.





# IP comms device configuration ecosystem





## TS.32 and IMS settings

TS.32 v3 sections	# of parameters
GSM	16
UTRA	8
HSPA	24
LTE	50
LTE FGI bits	57
APN	27
<b>IMS</b>	<b>48</b>
Others	23
TOTAL	253

- Link: [TS.32 v3.0 “Technical Adaptation of Devices via Late Customization”](#)
- TS.32 (mostly) includes GSMA suggested **default values** – thereby implying the settings on an Open Market Device.
- IMS settings reflect the RILTE PRDs and the updates are reflected subsequently.
- Additional operator settings that aren’t included in TS.32 can also be to the database as “MNO Supplementary Settings”.

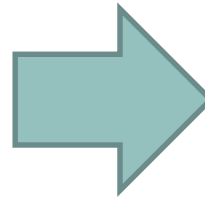


# Project roadmap

## Phase 1: Interim Stage

- Objective is to prove the demand by registering the settings of 50+ operators
- Settings are stored and distributed in InfoCentre2 which is GSMA's member portal
- Manual operation managed by GSMA staff

Q1 2017



## Phase 2: Online Database

- Online database ([TS.36](#))
- Web user interfaces for operators and OEMs
- APIs for OEM device config servers



## Registered operators

### MNOs:

- ▼ A1 Telekom (Austria)
- ▼ AT&T
- ▼ China Unicom
- ▼ DT Czech Republic
- ▼ DT Germany
- ▼ DT Greece
- ▼ DT Hungary
- ▼ DT Netherlands
- ▼ DT Poland
- ▼ DT Romania
- ▼ DT Group (+6 MNOs, +5 MVNOs)
- ▼ IDC (Moldova)
- ▼ IT&E
- ▼ MTN Nigeria
- ▼ ntel (Nigeria)
- ▼ Orange Belgium
- ▼ Orange France
- ▼ Orange Moldova
- ▼ Orange Poland
- ▼ Orange Romania
- ▼ Orange Slovakia
- ▼ Orange Spain
- ▼ Orange Group (MEA operators)

### MNOs:

- ▼ Proximus
- ▼ SFR
- ▼ Smart (Cambodia)
- ▼ Swisscom
- ▼ Telecom Italia
- ▼ Telecom Personal (Argentina)
- ▼ Telefonica Argentina
- ▼ Telefonica UK
- ▼ Telefonica Group (+ 15 MNOs)
- ▼ Three (UK + 17 MNOs)
- ▼ Turkcell
- ▼ Turk Telekom
- ▼ Velcom (Belarus)
- ▼ Verizon Wireless
- ▼ Viva Kuwait
- ▼ Vodafone (Germany + others)
- ▼ Zain Kuwait

### MVNOs:

- ▼ Cricket (AT&T)
- ▼ Transatel French MVNO
- ▼ Transatel Global IoT MVNO
- ▼ Voiceworks MVNOs (2)
- ▼ Now PAYG (Now Mobile)
- ▼ Talk Home Mobile
- ▼ Liberty Global MVNOs (3)

Settings submitted: 33 MNO, 3 MVNO

Settings in progress: 50+ MNOs, 30+ MVNOs

Red colour indicates that the settings are not delivered yet



# OEMs and Chipset Providers

## Phase 1: Interim Stage



## + Phase 2: Online Database





## Key questions

**Q. *Which settings are included in the scope?***

**A.** The device settings include VoLTE, ViLTE, VoWiFi and radio parameters. Please refer to [TS.32 v3](#) document for further details.

**Q. *Can operators see each others settings?***

**A.** No, settings are isolated between the operators.

**Q. *Can all OEMs see all operator settings?***

**A.** No, operators provide the list of OEMs that their setting can be shared. Ideally the settings should be available for all OEMs.

**Q. *How can operators and OEMs join the project?***

**A.** To find out more and to participate in this initiative visit [www.gsma.com/futurenetworks/digest/dsd/](http://www.gsma.com/futurenetworks/digest/dsd/)





Future  
Networks

**BACKUP SLIDES**





## Appendix – TSG



### TERMINAL STEERING GROUP

TSG is a members only GSMA working group that facilitates operator and vendor alignment to drive terminal related matters for the benefit of the entire mobile ecosystem. It manages/coordinates terminal capability requirements activities within GSMA and beyond. TSG also provides a first contact point for operators or vendors or industry organisations who would like to:

- Start, update on and discuss terminal related matters, terminal capability requirements activities
- Update one of the testing specifications TSG provides a coordinated activity for operators and vendors
- Ensure feasibility, consistency, vendor engagement, no overlap with other industry bodies activities
- Align work between terminal capability requirements and terminal testing activities
- Please see the group page at:

<https://infocentre2.gsma.com/gp/wg/TS/Pages/Default.aspx>



## Appendix – TSG TAD



### TECHNICAL ADAPTATION OF DEVICES

- Task Force under TSG that defined a set of configuration parameters for Late Customisation for OMD.
- Covered all aspects of late configuration (e.g. LTE, 2G/3G, RAN, IMS and others).
- The IMS aspects were defined in co-operation with RILTE and were also reflected in updates to latest versions of RILTE PRDs (IR.92 etc.) via addition of annexes with parameters and default values and (continuing) interaction with 3GPP to maintain alignment.
- Published “TS.32 v3 Technical Adaptation of Devices Through Late Customisation” in 20 Sep 2017, please download from the link below:  
<https://www.gsma.com/newsroom/all-documents/technical-adaptation-of-devices-through-late-customisation/>
- Please see the group page at:  
<https://infocentre2.gsma.com/gp/wg/TS/WI/TAD/Pages/Default.aspx>



### DEVICE SETTINGS DATABASE

- Task Force under TSG that provides a central repository for operator-specific settings,
- These settings will be made available to device manufacturers, to bring improved ease-of-use to end customers and improved performance of devices, while reducing the need for bilateral communications between OEMs and carriers.
- The reference document specifies the “requirements for a database enabling the efficient transfer of settings from mobile network operators (including mobile virtual network operators) to device manufacturers in order to allow for the appropriate customization of devices “.
- Published “TS.36 v3 Devices Settings Database” in 20 Sep 2017, please download from the link below:  
<https://www.gsma.com/newsroom/all-documents/devices-setting-database/>
- Please see the group page at:  
<https://infocentre2.gsma.com/gp/wg/TS/WI/SET/Pages/Default.aspx>