GCF

Global Certification Forum

Certification News

Latest initiatives

11 Work items approved by Steering Group to bring the latest device functionality within GCF certification

Dual-SIM debate

GCF members consider the Certification requirements of dual-SIM devices

Taken to Task

Updates from GCF's Task Forces

Vacancy

Business Development

GCF to expand its M2M remit

While promoting the interoperability of wireless products remains central GCF's mission, September's Steering Group meeting agreed an updated set of objectives which places greater emphasis on identifying and serving the certification needs of emerging geographical markets and the M2M sector.

Over recent months the Strategy 2015+ Task Force has undertaken an in-depth study of the mobile industry's evolving business environment and the possible implications for GCF's role.

With industry analysts universally forecasting that mobile M2M connections will be a significant component of the *Internet of Things*, the Task Force identified an opportunity to support the emerging M2M business models of members – and the wider industry. For large-scale M2M deployments in particular, but also more generally, GCF Certification can be leveraged to build confidence among operators, device manufacturers, distributors, systems integrators and other stakeholders.

The Task Force also concluded that certification of mobile phones and connectivity devices for compliance against industry-agreed standards remains fundamental to the core businesses of GCF's operator and manufacturer members. A global certification scheme offers tangible benefits to manufacturers wishing to offer products to operators or distributors looking to source products in an increasingly global market.

> ### *"Test once, use anywhere"*
>
> *Assuring the interoperability of wireless products by offering a global industry certification process which ensures compliance of products to agreed standards.*
>
> GCF's core objective

Transfer of CDMA2000 device certification to GCF on track

At its meeting at the end of October, the Steering Committee of the CDMA Certification Forum (CCF) is expected to formally transfer CDMA device certification to GCF.

In the meantime, trial certifications have been undertaken to verify GCF processes and tools for CDMA device certification. Preparations have also been made to integrate 3GPP2 test cases in to GCF's Device Certification Criteria database and to add devices certified by CCF to the GCF-certified device database. GCF has initiated a review of its IPR policy to permit the ongoing development of CDMA2000 test cases.

Both organisations expect that by the end of December 2014 all identified milestones will have been completed allowing CCF to cease its certification activities.

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Work Item Update

The successive 3GPP releases introduce new features and also build upon and enhance existing features and functions. These enhancements invariably deliver important and valuable benefits – both to end-users or to operators. Once an enhancement has been brought within GCF Certification, a manufacturer is able to demonstrate that its latest device supports the refinement and can deliver the benefit.

Enhancements to existing standards are brought to GCF within the same Work Item process that is used to bring an entirely new technology or functionality within GCF.

When the GCF Steering Group met in Beijing in September, 11 new Work Item proposals were agreed, including several relating to enhancements to 3GPP standards: three proposals related to HSPA, three related to MIMO, six to LTE and one to "Machine Type Communications" and the management of M2M devices on mobile networks.

MIMO/non-MIMO co-existence (Rel-7, FDD)
The functional core requirements for the co-existence of MIMO and non-MIMO devices in the same cell were defined in 3GPP HSPA Rel-7. Test specifications are now available to allow the functionality to be brought within Certification.

Absolute priority-based re-selection in Rel-8 UTRA FDD
While GCF already covers priority-based re-selection for LTE, this Work Item extends coverage to the equivalent feature in Rel-8 3G.

Combination of 64QAM with MIMO for HSDPA (Rel-8, FDD)
The combination of MIMO and 64QAM can increase throughput in favourable radio conditions such as well-tuned outdoor systems or bespoke indoor solutions.

Combination of DC-HSDPA with MIMO (Rel-9, FDD)
The combination of DC-HSDPA with MIMO increases user throughput in Dual-Cell capable networks.

Inter-Cell Interference Co-ordination (ICIC)
Inter-Cell Interference Co-ordination improves a device's downlink control and so contributes to enhanced data capacity and cell-edge spectrum efficiency. ICIC is particularly beneficial for LTE deployments in heterogeneous networks that don't support Carrier Aggregation (CA).

Two Work Items were approved: one covers enhancements to Rel-8/9 ICIC mechanisms (eICIC). The second will bring Further Enhanced ICIC (feICIC) within the certification scheme.

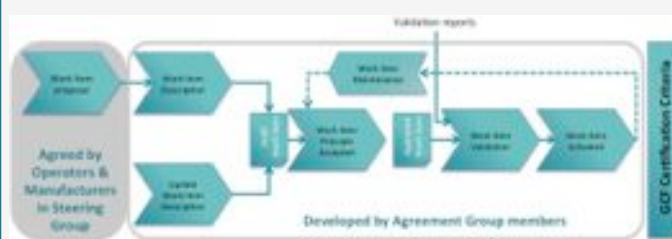### Further Enhancements in Reporting & Measuring (Rel-10 LTE)
Three additional conformance test cases covering measurement reporting and one covering performance provide enhanced test coverage of essential core requirements for Rel-10 devices supporting LTE-FDD.

Improved Minimum Performance Requirements -Interference Rejection (Rel-11 LTE)
Increases spectral efficiency by improving the link-level performance of various LTE downlink channels in the presence of other cell interference.

System Improvements for Machine-Type Communications (SIMTC) (Rel-11 UTRA and LTE)
SIMTC are being developed by 3GPP to give operators extra tools to manage large volumes of M2M devices. This proposal brings three SIMTC features within the scope of GCF Certification: Extended Access Barring (EAB); Dual Priority and SMS-only service.

Further Enhancements to 3G CELL_FACH (Rel-11 UTRA FDD)
CELL_FACH, has been progressively enhanced in successive 3GPP Releases. Rel-11 introduces further enhancements that will ensure devices with low-to-medium packet data activity can operate in CELL_FACH with similar performance, coverage and battery consumption as in other states. The enhancements also cover absolute-priority based re-selection from CELL_FACH to LTE and fall-back to Rel-99 PRACH.

ZUC algorithm conformance testing (Rel-11 LTE FDD)
ZUC is a mandatory feature for LTE devices in the Chinese market and therefore an important certification feature for ciphering and integrity protection within Rel-11 LTE.

Dual-SIM devices

During SG#60 in Beijing, members discussed the growing demand for mobile devices capable of supporting two SIMs or USIMs.

Applications that are gaining traction with users include the ability to:

- Separate voice and data usage, possibly for cross-charging reasons
- Separate work and private use
- Have numbers from different operators
- Move to a new operator while keeping an original number

Dual-SIM devices are also of potential interest to green field LTE operators who wish to offer voice services through an MVNO relationship with another operator.

A group of interested members has undertaken to scope the testing requirements for two dual-SIM use cases and identify relevant tests from Standards Development Organisations that currently exist.

Agreement Group Chairs & Vice Chairs for 2015-16

Chairs and Vice-Chairs of GCF Agreement Groups are elected for two-year terms. During the recent CAG and FTAG meetings, the following were elected for 2015-16.

Conformance & Interoperability AG
Chair:　　　Valerie Townsend, Panasonic
Vice-Chair:　Wolfgang Schubert, Rohde & Schwarz

Field Trials AG
Chair:　　　Michael Ciplajevs, 7Layers
Vice-Chair:　Martin Sauter, Deutsche Telekom

The results of the Chair/Vice-Chair elections for CAG2, which agrees and maintains certification criteria for 3GPP2 devices, will be reported in the next edition of *Certification News*.

Work Item Update (cont.)

Once approved by Steering Group, the translation of a Work Item into Certification Criteria is undertaken by one of GCF's Agreement Groups.

At its meeting in July, kindly hosted by Microsoft in Espoo Finland, the **Conformance & Interoperability Agreement Group (CAG)** activated the following Work Items that had been sanctioned at previous Steering Group meetings.

- Conformance and IOP tests for UICC-based NFC (Near Field Communication Services) referencing the associated GSMA profile
- SWP/HCI Enhancements for UICC-based NFC Services
- Carrier Aggregation for LTE (Rel-10 and later). The activated Work Item specifically covers the following LTE band combinations:
  1 and 18;　1 and 26;　1 and 5;
  3 and 8;　　4 and 13.
- Rel-10 EPS Enhancements for EPS-FDD - GERAN Inter-RAT Protocol Conformance

- EPD TDD-UMTS FDD inter-RAT protocol
- LTE FDD Inter-band Conformance Testing
- Network Initiated Secondary PDP Context Activation (3G FDD Rel-7)

In addition, the creation of a detailed Work Item Description – the important next step after the approval of a Work Item Proposal - was completed for:

- AMR-WB Audio Enhancements (HD Voice)

New Test Platforms
A new test platform or tool must be independently validated against new test cases to ensure it complies with the relevant Test Specification.

CAG approved two new test platforms for the associated test areas:

- CETC 41 for LTE RF and RRM testing
- FIME for UICC-based NFC conformance testing.

Meeting in Espoo immediately after CAG, the **Field Trial Agreement Group (FTAG)** agreed a number of operational changes that tightened the alignment with the GSMA TS.11 test specifications on which GCF Field Trials are largely based and streamlined the maintenance of Field Trial documentation.

Membership Matters

GCF has welcomed the following new members since the last edition of Certification News.

Operators & Associate Operators

- TIM Celular, Brazil

Manufacturers

- Advantech, Taiwan
- AsureWave, Taiwan
- Compal, Taiwan
- Continental Auto Systems, USA
- Montseny Balast, Spain
- Prestigio Plaza, Cyprus
- Quanta Computer, Taiwan
- SGP Technologies, Switzerland
- TCL, China
- TrekStor, Germany
- Wistron, Taiwan

Associate Manufacturers

- Ascom Wireless, Sweden

Observers

- CCIC-SET, China
- InterDigital Communications, USA
- Integrated Service Technology, Taiwan
- Keysight Technologies, Spain
- PAL Acoustics Technology, Taiwan

Membership totals

- Operators: 20
- Manufacturers: 72
- Associate Operators: 100
- Associate Manufactures: 11
- Observers: 78
- Client Vendors: 1

Strategy, Automotive, RCS, NFC and OTA Task Forces

The Steering Group received reports from the current task forces.

Strategy Task Force

The initial recommendations from the Strategy 2015+ Task force were delivered to SG#60 in Beijing. The Task Force has been further tasked with devising a quantifiable action plan to move the approved and expanded strategy forward.

Automotive Task Force

Tasked with understanding the relevance of GCF Certification to the emerging connected vehicle market, the Automotive Task Force submitted an interim report incorporating intelligence and insight gleaned from operator M2M business units to SG#60 in Beijing. Further outreach to automotive manufacturers is currently underway with the target of providing recommendations to the SG#61 which will take place in Malta in December.

RCS Task Force

Although the certification of client applications for standards-based services such as RCS has been successfully implemented within GCF, the RCS Task Force will continue until at least SG#61 while matters relating to future releases of RCS are clarified.

NFC Task Force

Following collaboration with a number of stakeholders in the NFC eco-system, work on UICC-based NFC services is now being managed within CAG, as reported on page 3.

The Task Force has therefore been formally disbanded although the associated email reflector has been retained to facilitate discussions between interested members on NFC-related matters.

VACANCY
Business Development for New Markets

For details, contact
gcf@globalcertificationforum.org

Closing date: 31 October

Meet GCF in 2015

MOBILE WORLD CONGRESS
BARCELONA 2-5 MAR 2015

MOBILE ASIA EXPO 亚洲移动通信博览会
Shanghai | 15-17 July 2015 • 上海 | 2015年7月15至17日

If you would like to meet GCF at MWC in Barcelona or MAE in Shanghai, contact us at [email address].

We're also keen to build on the successful regional events we staged in Delhi in 2013 and Beijing in 2014. Details will be published on the GCF website and in a future edition of *Certification News*.

OTA Task Force

This Task Force was established to identify certification requirements for Over-The-Air Antenna Performance.

Through liaison with relevant 3GPP technical groups, the intention is to fill current gaps in the certification requirements (test methodologies, test limits) for the mobile technologies, bands and device form factors of interest to GCF members.