

**For the industry,  
by the industry**

GCF has three principle membership categories:

**Operators & Associate Operators**

- Any operator of a network based on any 3GPP or 3GPP2 technology

**Manufacturers**

- Companies that produce complete devices that are marketed under a brand name they own.
- Associate manufacturers: companies that wish to certify wireless-connected products that incorporate GCF-certified modules.
- Client Vendors: developers of client application software for 3GPP and/or 3GPP2 devices.

**Observers**

- Other companies that have a genuine interest in mobile technologies including many test organisations.



## Benefits of GCF Membership

All members benefit from being able to contribute to the debate on the technologies, test criteria, test tools and test cases included in GCF's "Test once, use anywhere" certification scheme.

The strengths of the GCF Certification scheme benefit all members:

- Common, relevant test requirements defined by the industry to meet market needs
- Sharing of best practice that promotes consistency of testing worldwide
- Avoidance of unnecessary duplication of interoperability, compatibility and functionality testing
- Fast adoption of new technologies into certification to ensure interoperability
- A consistent certification scheme for mobile phones and all types of wireless devices.

Full Operator & Full Manufacturer Members can:

- Propose new Work Items or Performance Items and nominate Rapporteurs for Work Items or Performance Items.

Full Operator & Full Manufacturer and Observer Members enjoy additional benefits:

- Free attendance and voting rights at GCF meetings
- The right to stand for election to the GCF Board or Chair/Vice Chair positions on the Steering Group or Agreement Groups.

Manufacturer Members can certify an unlimited number of devices. Associate Operators pay a daily delegate rate to attend meetings.

GCF Membership Fees for 2015		
Category	Full	Associate
Operator	€11,000	Complimentary
Manufacturer	€11,000	€5,500
Observer	€5,500	
Client Vendor	€5,500	

A supplementary Participation Fee is payable by members in GCF's CDMA-related activities. For 2015, the CDMA Participation Fee is 50 per cent of the annual fee for the relevant membership category.



Scan here to download an application form

To contact GCF: ✉ [gcf@globalcertificationforum.org](mailto:gcf@globalcertificationforum.org)

**Q1**

- CAG#41 / FTAG#38**  
 ① Dubai, UAE, Jan  
**CAG2 / TCAG2#6**  
 ② San Diego, CA, USA, Feb  
**SG#62**  
 ③ Orlando, FL, USA, Mar

**Mobile World Congress**  
 Barcelona, Spain, Mar 2-5

**Q3**

- CAG#43 / FTAG#40**  
 ⑤ Malaga, Spain, Jul  
**CAG2 / TCAG2#8**  
 ⑥ Portland, OR, USA, Jul  
**SG#64**  
 ③ Germany, Sep

**Mobile World Congress, Shanghai**  
 Shanghai, China, Jul 15-17  
**CTIA Supermobility 2015**  
 Las Vegas, USA, Sep 9-11



**Q2**

- CAG#42 / FTAG#39**  
 ③ Minneapolis, USA, Apr  
**CAG2 / TCAG2#7**  
 ④ Kansas City, KA, USA, Apr  
**SG#63**  
 ② Shanghai, China, Jun

**LTE Latin America**  
 Rio de Janeiro, Brazil, Apr 7-9  
**Indian Roundtable**  
 New Delhi, India, Apr 15  
**M2M World Congress**  
 London, UK, Apr 28-29

**Q4**

- CAG#44 / FTAG#41**  
 ⑦ Beijing, China, Oct  
**CAG2 / TCAG2#9**  
 ⑧ Dallas, TX, USA, Nov  
**SG#65 / AGM#8**  
 ④ Italy, Dec



Mobile World Congress Special Edition March 2015

# Certification News

**Meet the GCF Office**

Professionals in the GCF Office support members in pursuing GCF's objectives

Page 2

**Certification Explained**

Understand the principles that underpin GCF Certification

Page 3

**Membership Matters**

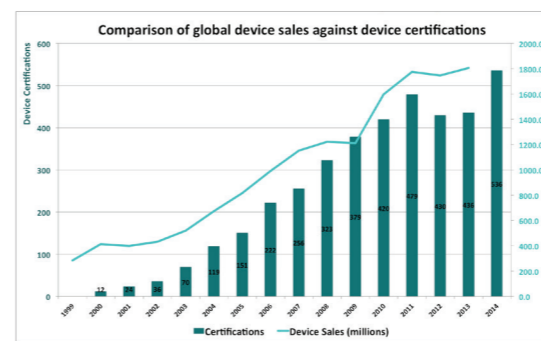
Find out about GCF's membership categories and how to join

Page 4

## Record number of devices certified in 2014

53 manufacturers certified a record 531 mobile devices in 2014. Overall, certifications were 22.5 per cent higher than in 2013.

The efficiencies realised by the "Test once, use anywhere" certification scheme – which is recognised by a broad cross-section of the world's leading operator groups – make an important contribution to expanding the global mobile phone market by increasing the choice of trusted devices.



These efficiencies are set to become even more valuable. In 2014, the "average" GCF-certified LTE devices incorporated 4.4 FD LTE bands, 3.1 3G bands and 3.5 GSM bands. With FD LTE being deployed in approaching 20 bands worldwide, devices will include more bands to support international LTE roaming. More widespread adoption of carrier aggregation – already included within GCF – will further add to device complexity. Certification will help manufacturers and operators bring these sophisticated new devices to market.

### M2M & IoT added to GCF's objectives

GCF's core objective remains to assure the interoperability of wireless products by offering a globally-recognised industry certification process which ensures compliance of products to agreed standards.

In addition, GCF's current priorities are to:

- Promote increased use of GCF Certification in its current markets
- Promote adoption of GCF certification by the mobile industry in markets where it is not presently used
- Support industry's emerging M2M business models by ensuring GCF Certification meets key industry needs

GCF's M2M Task Force is seeking input from any M2M stakeholder to understand how certification can best contribute to the success of M2M and the Internet of Things. Please share your thoughts.

GCF Certification News is intended to provide an overview of the work of GCF and does not constitute a formal record of decisions taken at GCF meetings. Members can access official records of all GCF meetings in the members' area of the GCF website.

To receive your own copy of future editions of GCF Certification News, please sign-up at [www.globalcertificationforum.org](http://www.globalcertificationforum.org)

Global Certification Forum  
 20-22 Bedford Row  
 London, WC1J 4JS, UK

[www.globalcertificationforum.org](http://www.globalcertificationforum.org)

# GCF Office members at MWC

## Lars Nielsen, General Manager



Working closely with the Chair and Vice Chair of Steering Group, and the Board of Directors, Lars coordinates the work of the GCF Office team, overseeing strategy development, day-to-day operations, and external communications. In a 30-year career at Motorola, Lars previously gained experience across the development, testing, quality and compliance of mobile devices. He represented Motorola in GCF and also served on the GCF Board.

## Dervilla O'Shea, Membership, Events & Meetings Manager



Dervilla is responsible for assisting companies through the membership application process and then supporting the 280+ GCF

members. She also plans and coordinates the annual calendar of quarterly membership meetings held at venues around the globe and manages GCF's presence at events such as Mobile World Congress and CTIA. During 12 years in the mobile industry, Dervilla previously worked at GSMA.

## Bruce Jolly, Business Development Manager



Formerly General Manager of the CDMA Certification Forum, Bruce joined GCF in 2015 to engage with the mobile industry in the

growth markets of Latin America and Africa and to support existing initiatives to promote GCF and Certification in other regions such as China and India.

## Steven Dumper, Technical Operations Manager



Responsible for the GCF Certification process from end-to-end, Steven actively monitors declarations from manufacturers, RTOs

and Third Party ACEs to ensure certification remains efficient and robust. He also coordinates the technical activities required to support GCF strategies. Previously, at Samsung, he established and then managed its ISO 17025 test laboratory and represented the company at GCF.

## Chris Hogg, Programme Manager



Chris is actively involved in the development of GCF's overall objectives and business strategy and works with members and other stakeholders to identify how the evolving mobile landscape impacts

certification. He is also currently supporting GCF's M2M Task Force and the Field Trials Agreement Group. Chris has extensive experience in telecom standardisation having previously represented Nortel at 3GPP, ETSI and ITU-T.

## Dennis Fu, GCF representative in Asia Pacific



Dennis is GCF's representative in the large and influential Chinese market. Active in the mobile industry since 1993, Dennis has held

roles at Spirent, Qualcomm and the CDMA Certification Forum. He also represents the Car Connectivity Forum in China and APAC.

# GCF Certification – how it works

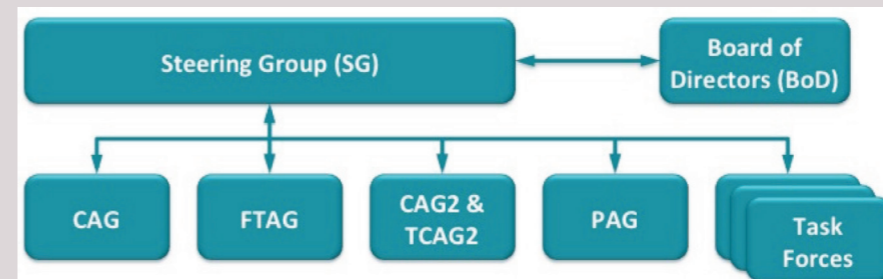
A voluntary, industry-defined certification scheme focused on interoperability between mobile handsets and networks.

GCF certification follows the principles of a supplier's declaration of conformity (SDoC) as defined in ISO/IEC 17050.

To ensure integrity, GCF Certification encompasses six processes:

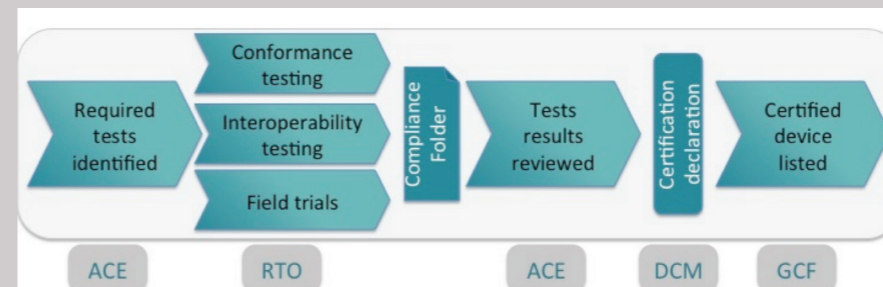
- ❑ **QUALIFICATION:** manufacturers have to demonstrate they have the skills, working practices & resources to participate
- ❑ **DEFINITION:** Scope of testing for new features agreed by members in Steering Group; definition and implementation of these "Certification Criteria" delegated to Agreement Groups
- ❑ **VALIDATION:** Conformance Certification Criteria and test platforms independently validated
- ❑ **ASSESSMENT:** Devices tested to demonstrate they meet all relevant certification criteria
- ❑ **DECLARATION:** New certified devices notified to GCF Operator Members
- ❑ **CONTEST:** pre-defined process underpins robustness by allowing operators to challenge the certification of a device

## GCF's ORGANISATION



- ❑ **STEERING GROUP** sets GCF's overall direction
- ❑ **AGREEMENT GROUPS** undertake technical Work Items agreed by SG
- ❑ **TASK FORCES** are established by SG to investigate issues of common interest and submit recommendations back to SG

## THE CERTIFICATION PROCESS



- ❑ **ACE:** Assessment Capable Entity – A GCF member that supports a Associate Manufacturer Member by determining the range of tests required to certify a device and assessing test results to ensure the device satisfies all relevant certification criteria
- ❑ **RTO:** Recognised Test Organisation – A GCF member that possess the experience, qualifications and systems to assess mobile phones and wireless devices against GCF's Certification Criteria
- ❑ **DCM:** Device Certification Manager – Individual(s) within a manufacturing company responsible for ensuring the certification process is followed correctly

## CONFORMANCE & INTEROPERABILITY AGREEMENT GROUP (CAG)

Defines Certification Criteria for conformance testing based on network simulators and interoperability tests (IOP) for client-to-client and client-to-server functional checks

### Recent priorities:

- ❑ LTE Carrier Aggregation – 24 band combinations already supported within scheme
- ❑ Features considered important by operators as differentiators such as UICC-based NFC, RCS and 3GPP acoustic enhancements
- ❑ Features that benefit network operations and efficiency such as security enhancements and OTA antenna performance
- ❑ 3GPP network and system improvements for M2M beginning to feature in Certification Criteria

Devices must be tested against all the Certification Criteria relevant to the incorporated technologies and functionalities

## FIELD TRIAL AGREEMENT GROUP (FTAG)

Defines Field Trial Certification Criteria for verifying device behavior in live commercial networks made available by Field Trial Qualified Operators.

### Recent priorities:

- ❑ Introduction of new VoLTE testing
- ❑ RCS testing

## PERFORMANCE AGREEMENT GROUP (PAG)

Maintains programme that allows manufacturers to quantify and report in a standardized way on agreed aspects of mobile device performance. Performance Metrics currently cover

- ❑ Battery life
- ❑ Acoustic performance
- ❑ OTA antenna performance
- ❑ Data throughput

## CONFORMANCE & INTEROPERABILITY AGREEMENT GROUP 2 (CAG2)

Working in parallel with the Test Case Development Agreement Group 2, CAG2 (TCAG2) is responsible for the maintenance and on-going development of CDMA device certification within GCF

### Recent priorities:

- ❑ Successful incorporation of CDMA certification into GCF
- ❑ Ensuring seamless service between cdma2000 and LTE
- ❑ Supporting CS voice services over 1X-RTT and LTE data simultaneously