



GCF ON COURSE TO DELIVER LTE DEVICE CERTIFICATION

Scheme to include around 360 test cases to give high levels of assurance of interoperability for the first LTE devices

8 January 2010: GCF, the Global Certification Forum, is on schedule to release an LTE device certification scheme before the end of 2010 – in time for a wave of commercial LTE network launches expected towards the end of the year.

Designed to give operators confidence in the interoperability of LTE devices across different networks, GCF's unified scheme will embrace both FDD and TDD versions of LTE.

Established in 1999, GCF has a total membership of more than 200, including many of the world's most influential telecommunications companies from the operator, device manufacturer and test industry communities. With its "test once, use anywhere" ethos, GCF certification accelerates time to market for new devices based on 3GPP standards while reducing costs for manufacturers, operators and, ultimately, end-users. For both GSM and 3G, GCF certification has underpinned international roaming.

Bringing sophisticated new technologies such as LTE within the scope of GCF Certification is a massive undertaking involving the selection, prioritisation and validation of more than 280 conformance tests in the first instance. In addition a comprehensive field trial regime is being developed. The test industry plays a vital role through the timely investment in the required new test platforms and test facilities.

To meet the needs of the US, Japanese and European markets, LTE Certification will initially encompass the FDD frequency bands at 700 MHz, 2100 MHz and 2600 MHz respectively. For TDD, certification is currently being developed for the 2300-2400 MHz and 2570-2620 MHz bands that have

been allocated for LTE in China. GCF is structuring LTE certification so that, as the need arises, it can be extended quickly and efficiently to other frequency bands.

The development of conformance testing has been divided into three distinct areas: RF; the E-UTRA protocol; and the Evolved Packet Core protocol. A total of six teams have been established to develop the conformance criteria for each of the three areas across the FDD and TDD variants.

The prioritisation and definition of conformance testing are now virtually complete for both FDD and TDD and the validation of agreed conformance tests is beginning to gather momentum[†]. GCF is working very closely with RAN5, the 3GPP group responsible for developing mobile device conformance test standards, to ensure that the scheme remains aligned with the very latest developments in 3GPP.

The development of LTE certification enjoys the active support of GCF members from around the world. Operators from Japan and China are providing overall leadership for the conformance testing efforts for FDD and TDD respectively while six leading manufacturers have stepped forward to lead the work items that make up each of the FDD and TDD strands of the project

Requirements for field trials – a unique feature of GCF Certification – are being prioritised into two phases by GCF's Field Trial Agreement Group (FTAG). With a target completion date of June 2010, phase 1 requirements will include between 80 and 90 new field test scenarios consistent with the functionality anticipated in the first commercial LTE devices. Around 40% of the test cases have already been written.

Several major operators, manufacturers, test companies and the GSMA Devices Group are working together on the development of LTE field trial procedures.

“Certification will play a critical role in the long-term commercial success of LTE,” said Adriana Nugter, GCF Operations Manager. “GCF has been formally working on LTE Certification since March 2008 and by focusing the efforts of experts from across the operator, manufacturer and test communities, we are confident that certification will be in place in time for a wave of operator launches anticipated towards the end of the year.”

GCF will provide an update on the progress of LTE device certification to “Readying for the Launch of Next Gen Networks” – at the Mobile World Congress in Barcelona on Thursday 18 February 2010.

– ENDS –

†Notes to editors: *status of GCF certification (end November 2009)*

Not all the attributes of the LTE standard impact on a device’s interoperability to the same extent. The first stage in developing GCF Certification is to prioritise those parts of the standard that will have greatest impact on interoperability. To date:

- Four priority groups have been selected for signalling tests
- Two priority groups have been selected for RF tests

These lists are currently 98% stable.

Based on GCF’s prioritisation work, 3GPP RAN5 is developing the required test cases

- For the RF element of the FDD standard, 94 out of 101 tests are more than 80% complete
- For the RF element of the TDD standard, 90 out of 94 tests are more than 80% complete
- 230 out of 472 signalling tests are 100% complete
- A further 81 signalling tests are at 80%-99% complete
- TF 160, an ETSI task force that supports RAN5, has developed 191 test cases in the TTCN programming language used for testing communications protocols. Of these, 19 have been verified - a strong indicator of the readiness of commercially available test platforms. The first tranche of validated test cases will be presented for GCF approval in Jan 2010.

Global Certification Forum – GCF – is an active partnership between network operators, device manufacturers and the test industry. In the ten years since its inception in 1999, GCF has created an independent certification programme to help ensure global interoperability between mobile devices and networks. By providing the focal point for the world’s most experienced practitioners in conformance testing, field trials and certification, GCF establishes global best practice for the certification of mobile phones and the ever-expanding range of devices that incorporate wireless broadband connectivity. As its contribution to the smooth introduction of LTE, GCF started working on a global certification scheme for LTE devices in March 2008.

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