INTEROPERABILITY AND FIELD TESTING SERVICES
RELIABILITY YOU CAN TRUST

TESTING IN REAL-LIFE SITUATIONS
Thorough testing processes have to be conducted, to ensure that products and applications with integrated wireless technologies function according to expectations.

Interoperability and field tests are performed in real-life situations. They compare the product behavior of devices-under-test against qualified equipment and/or in real-life networks. Interoperability tests are based on the functionality as experienced by the user or the application itself. Due to the fact that interoperability testing is performed at the end points and at functional interfaces, it can only specify functional behavior.

Field testing is a variation of interoperability testing. It examines the behavior of products with wireless connectivity in real-life networks and multiple locations.

IMPORTANCE OF INTEROPERABILITY AND FIELD TESTING
Interoperability and field testing provides you with information as to how a wireless device or application behaves in real-life situations. It is used for:

- R&D processes
- Providing valuable product information
- Ensuring readiness for product launches
- Market acceptance
- Benchmarking with competitors’ products
- Proving purchase requirements
- Meeting certification and regulatory requirements

Our interoperability and field testing services are suitable for testing wireless modules and applications, mobile phones, smart phones and end-user devices with integrated connectivity.

INTEROPERABILITY AND FIELD TESTING PROCESSES AT 7LAYERS
Based on years of testing experience with wireless devices, we have a thorough understanding of certification, global type approval and other market requirements. You can rely on our expert know-how regarding wireless technologies such as GSM-Family, HSPA, LTE, Bluetooth®, VoIP, GPS, MMS, Video Telephony, Browsing etc. Our interoperability and field testing services are suitable for testing wireless modules and applications, mobile phones, smart phones and end-user devices with integrated connectivity.

Following the introduction of the GCF – RTO scheme (Global Certification Forum - Recognized Test Organization scheme) test laboratories of 7Layers have been accepted as RTO for Field Trial & IOP tests. This scheme guarantees a reliable and trustworthy testing service.

DIFFERENT SERVICE LEVELS AVAILABLE
7Layers offers IOP and field trial services according to certain service levels for a fixed price. Choose the most suitable package, depending on your requirements:

- **Basic**
  - A thorough testing service for less urgent projects including a limited amount of retesting

- **Smart**
  - Similar to service level “Basic”
  - Featuring short project lead time
  - including all retesting and traces for failed test cases

- **Agile**
  - Daily reporting, debugging, development testing etc.
INTEROPERABILITY AND FIELD TESTING

**COVERAGE**

**R&D support**
- According to customer-specific test guidelines
- According to guidelines developed in cooperation with 7Layers experts

**7Layers Easy-Check**
- Highly economical test services
- Checking basic functionalities via the most critical test cases
- Especially geared to M2M devices

**Network operator / carrier requirements**
- Vodafone
- Certification, (A)-GPS performance testing
- Verizon Wireless
- Field trial test specifications for LTE devices
- O2 -Home Zone testing according to O2
- T-Mobile, Orange, Telefonica, NTT DoCoMo and other network tests upon request

**Retailer requirements**

**GCF Certification**
7Layers is running a global cellular test laboratory network of GCF RTO’s (recognized test organizations), offering GCF conformance and field trial & interoperability testing in all major continents. Our field trial services include GCF requirements for 2G, 3G and 4G wireless terminals.

**PTCRB Certification**
Interoperability testing according to PTCRB

**Bluetooth® CTIA Compatibility Certification**
For mobile phones and headsets to be launched in the USA

**Regulatory requirements**

**Public safety interoperability**

**PROJECT PROCESS**

**1. Test Plans**
Customized test plans are created fully automatically, based on product features and test requirements

**2. Test Equipment**
7Layers provides
- Test SIM cards / MDNs
- Reference devices
- InterLab® test software
- QXDM (tracing software)

**3. Testing**
Systematical, automated test processes for high reliability, reproducible results and long test-runs, based on
- precise handling instructions
- highly qualified, experienced test engineers

**4. Feedback on test results**
Reliable feedback via customized status reporting at least once a day including:
- Information on test results
- Information on log files

**5. Analysis and debugging processes**
Our expert analysis and support includes:
- Error analysis based on log files
- Crosschecking of errors
  - with reference devices
  - with different devices of the same software suite
- Software updates can be uploaded via InterLab® system

**6. Reporting**
Status reports, detailed reports and final reports are generated fully automatically – the best way to prepare trustworthy reports.

YOU BENEFIT FROM

- Globally available services via the 7Layers group
- Expert advice on suitable networks, network configurations, test locations
- Continuously updated knowledge base of certification requirements such as GCF, PTCRB, Bluetooth® etc.
  - Enabled by active participation in major certification regimes
- Reliable, trustworthy processes
  - Confirmed by ISO/IEC 17025 accreditations for field trial testing, GCF-RTO scheme and others
- Thorough understanding of network operator specifications
  - This is an important pre-requisite for setting-up efficient test processes
- Support programs

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<tbody>
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