focusinfocom

ACT SPO
Autonomy in your hands

Just a smartphone, yet a fully autonomous measurement system

When autonomous goes smartphone

Focus Infocom's **ACT SPO systems are designed for ad-hoc QoS, performance and diagnostic tests.** They do not only offer **excellent value for money**, but also enable **completely new applications for mobile network measurement**.

While they come without the additional hardware of autonomous systems meant to be permanently built into cars or trains (like watchdogs circuits etc.), they are a great alternative for mobile scenarios, where ease of use, budget constraints and a compact design are the deciding factors.

ACT SPOs provide the same full set of service tests and measurement data for end-to-end QoS measurements, and a full range of diagnostic analysis, including two-way POLQA speech quality testing and chipset-level L1 and L3 data.

ACT SPO in a box

The devices are small so that even a multi-channel system is light-weight and compact. A suitable power bank or charger keeps the devices running. Each device can be used stand-alone, independent of the set.

Cost effective:
A use case example

Suppose you are planning measurements in a specific area. Your equipment–a set of ACT SPOs–arrives by mail, and the instructions are just a few easy steps:

Mount the devices so that GPS coverage is available and make sure that every channel has a comparable radio situation.

Connect a suitable power supply (e.g a power bank). For short-time measurements (a few hours), the battery of the devices is sufficient.

The devices start measuring automatically when they are switched on, or when a power supply is connected.

The devices auto-connect to the FleetManager, fetch the latest version of the intended test scenario, and register for monitoring.

Check whether the devices are up and running at regular intervals. If a device is not running, restart it.

After the measurement, start the data upload or wait for the automated upload to finish.

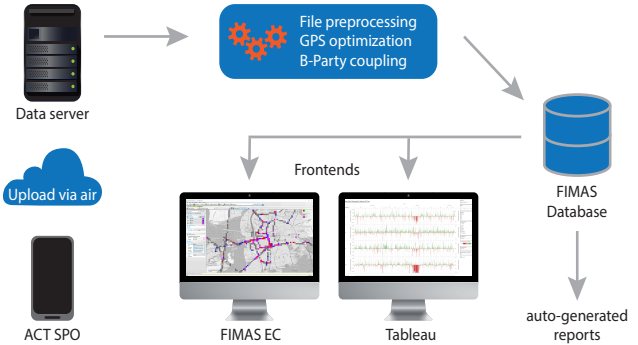
Post processing & reporting

A simple post processing chain will generate high-level reports, export to interactive data-viewing tools such as Tableau Reader, interactive dashboards and provide data for ad-hoc analysis including full diagnostic drill-down if required.

Once the raw data is uploaded to the infrastructure, it is usually imported and ready for analysis within hours.

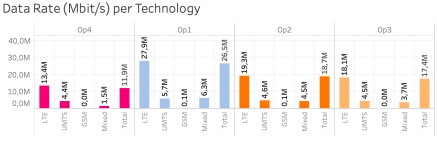
Data processing and analysis can be done in several ways: We offer different models to accommodate every need, from full-fledged managed services to providing the necessary equipment for your own analysis.

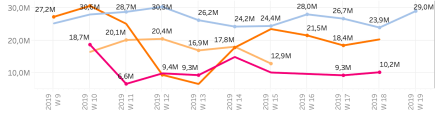
Typically, automated processing steps include basic testing and validation, GPS interpolation or map matching to improve position accuracy, and A-side and B-side data coupling for a complete overview of service quality.

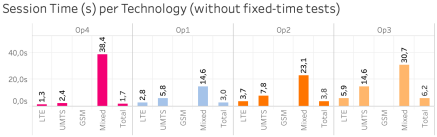


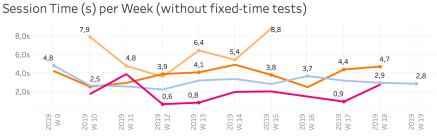
With the data available in an SQL database, the subsequent processing steps can include machine-assisted further validation and data cleansing.

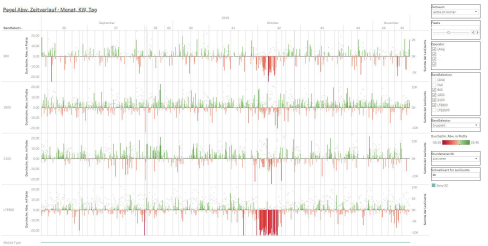
Visualize results in interactive dashboards

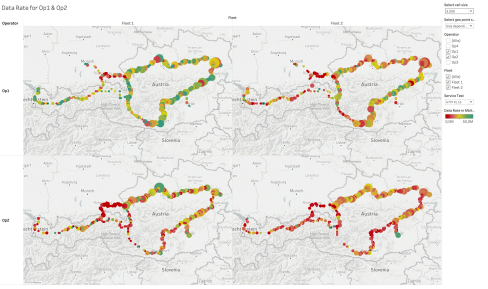












Once the raw data is imported into the FIMAS database, it can be visualized in interactive dashboards, for example using Tableau™ or any other SQL-capable data analytics tool.

These dashboards provide viable insights into your data as a basis for making the decisions that drive your business forward.

Everything under control

Each device can be remote controlled, no matter where it is located. You get near real-time information about its current location and can set alarm thresholds that warn you when something goes wrong in the network or data values fall out of bounds.

For telephony tests, the speechserver has a heartbeat function that provides detailed information about the status of the speechserver itself and the connected devices.

ACT SPO is a full member of the ACT family

Focus Infocom's ACT family of autonomous systems covers a wide range of use cases and is available in different form factors. Custom designs for individual requirements are possible.

Features

- Remote distribution of measurement jobs
- Latest generation of smartphones
- Use of internal or external antennas, depending on use case
- Certified for railway use (ACT Train)
- Multi-SIM switcher
- Mobile network and Wi-Fi measurement
- Numerous telephony and data test services
- App-based tests (YouTube™, Skype™, Facebook™ etc.)
- Individual designs for installation in different train types
- Speech quality (POLQA, ITU-T P.863)

ACT Standard/ACT Dual/ ACT Compact Equipped with one/two UE for use with external antennas.

ACT LSP is a compact, lightweight, smartphone-only autonomous solution that uses the smartphone's internal antennas.

ACT Train is a special ACT variant for installation in trains.

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Get in touch!

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