

# True view of your network

The new R&S®DATA-NPT mobile network performance test from Rohde & Schwarz brings innovation to network performance testing. The patent-pending testing solution is a very compact and resource-saving implementation of a new measurement procedure that simultaneously measures the maximum data capacity and the minimum continuous connectivity in a mobile network.



## Your task

Mobile network operators need to prepare their networks for the future and for new (increasingly real-time) applications.

Capacity demand and quality of experience expectations in mobile networks are increasing dramatically. Mobile network operators need to look for innovative approaches to verify current network performance and to design and roll out network expansions.

Network and service performance are the key to delivering the required quality of experience to mobile subscribers. Mobile network operators' main areas of interest include:

- Preparation of service launches (checking network readiness)
- Network quality of experience monitoring to ensure good service quality
- Service level agreement (SLA) assurance in particular for large enterprise customers
- Assurance of minimum network quality (complete connectivity/no outages)

## T&M solution

Mobile network testing in general and the network performance test in particular are critical elements in meeting mobile network operators' requirements. Mobile operators receive immediate insight into the network capacity available to end users. It is also easier and more affordable to carry out benchmark comparisons with competitor networks. The network performance test provides what operators need:

- Data throughput at given locations (drive test/walk test routes)
- Check of minimum connectivity/detection of areas with outages
- Real-world behavior (what a user can expect at this location using TCP, the most common protocol)

## Results and key benefits

Advantages of network performance test over traditional long-term transmission capacity tests:

- Cost savings for benchmarking competing operators' networks because costly data tariffs/packages can be avoided
- Reliable test since overheating of smartphone-based test equipment is avoided (heat significantly affects UE data performance)
- Predictable intrusiveness: acceptable load in the tested network (limited impact on real users)
- Network performance test works with user data sessions at real user locations, whereas OSS/SON algorithms mostly work on cell load percentage, network/cell KPI and fault statistics (which cannot provide user location specific throughput information)
- Independent of third party application servers

You get more out of your measurements in a shorter time. With the new network performance test you save time and money, evaluating solely the network impact on end user data throughput with predictable intrusiveness (impact on live network).

### Key features

This new network performance test overcomes the disadvantages of traditional capacity testing by using plain file uploads and downloads.

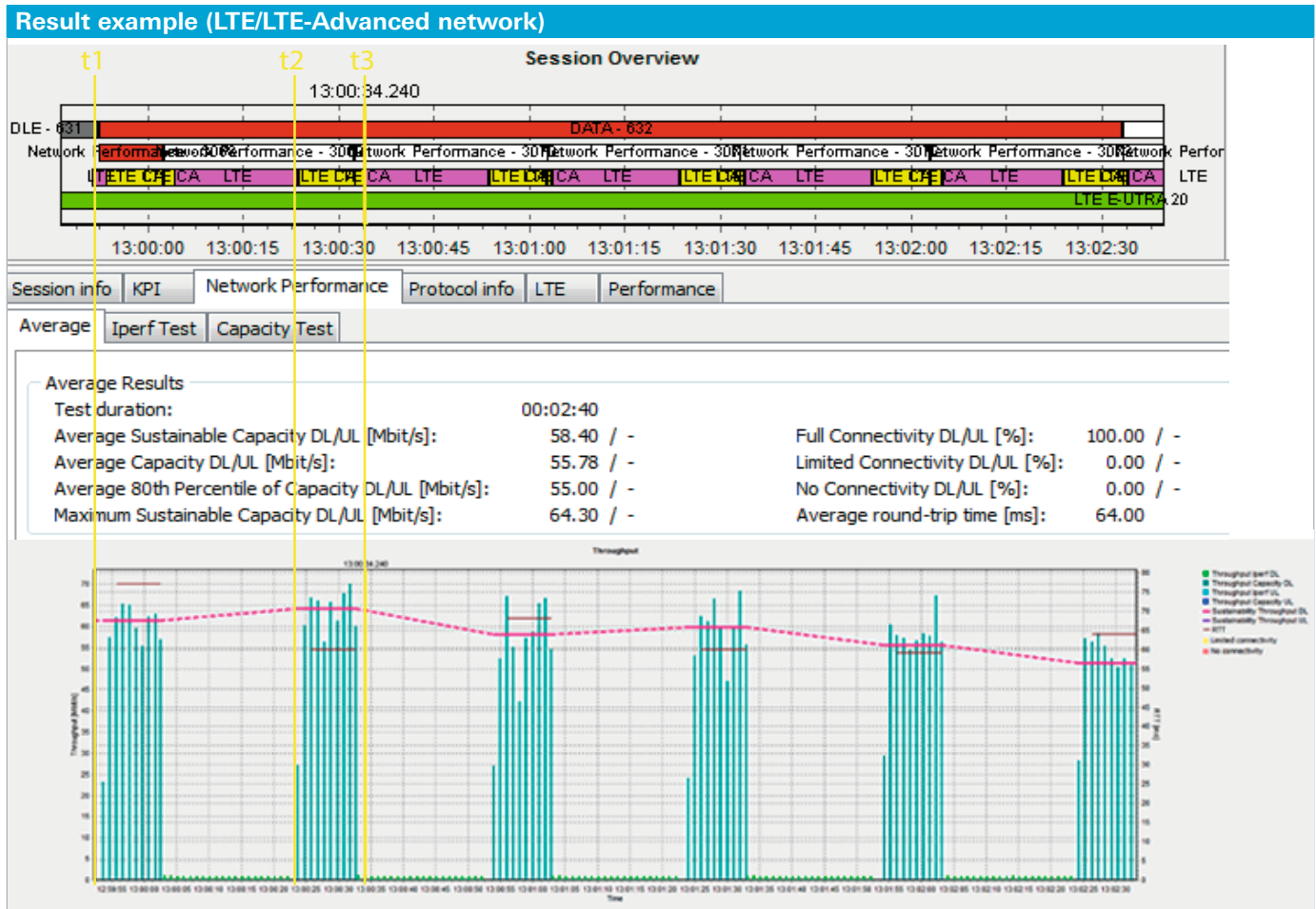
The test procedure focuses completely on the aspects of mobile network performance from the end user perspective, including the geographical dimension, which OSS and SON algorithms cannot provide. Unlike many speed tests on the market, the network performance test is independent of any third-party service hosted on the public Internet.

The network performance test is independent of the different radio access technologies and provides reliable and reproducible measurements. It is a simple, less complex and easy-to-configure test case, yet offers full flexibility for use in all mobile network testing use cases (benchmarking, optimization, service quality monitoring).

Alternative methods to achieve similar results are normally sending/receiving fixed files or specifically tailored packet blocks over the air interface which may cause unpredictable intrusiveness due to existing network load, channel conditions, position in the cell, etc.

### Additional information

Rohde&Schwarz launched this new network performance test in February 2016 for its Benchmarker II product line. Releases for other product lines will follow later in 2016.



Designation	Type	Order No.
Network Performance Test	R&S®DATA-NPT	1900.6010.07

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