R&S®BSCC1.0 BROADCAST SERVICE AND CONTROL CENTER

5G broadcast all-in-one core network

Product Brochure
Version 01.00

ROHDE&SCHWARZ

Make ideas real

AT A GLANCE

Running as part of the core network, the R&S®BSCC1.0 broadcast service and control center is a new, software defined solution that delivers multimedia content over LTE/5G networks in broadcast mode. It generates service announcements and encapsulates multimedia content into specific FeMBMS bearers to be delivered from the evolved packet core (EPC) down to the receiver.

The R&S®BSCC1.0 allows content providers to deliver high data rate content to their mobile users simultaneously with consistent quality of service (QoS). This results in higher quality of experience (QoE), spectral efficiency and reduced costs.

The solution supports the latest approved 3GPP Release 14, which allows operators to roll out advanced FeMBMS services that mix potentially different types of media over networks with hybrid unicast/broadcast coverage.

The R&S®BSCC1.0 implements the MBMS-GW and BM-SC 3GPP instances, making it possible to launch mobile TV services for broadcast network operators.

In order to deliver more services such as multimedia streaming on demand and public warning, the R&S®BSCC1.0 functions can be enhanced with more features and optionally integrate MCE and/or MME to provide a complete LTE broadcast solution. It can also be easily connected to third-party MCE and/or MME as a highly flexible platform.

The R&S®BSCC1.0 broadcast service and control center supports all required 3GPP standardized interfaces to control all EPC elements involved in the delivery of broadcast content over the LTE/5G network.

Benefits
▶ Compliant with 3GPP standards
▶ Full support for multicast broadcast single frequency network (MBSFN)
▶ Software defined application for resource optimization
▶ Flexible and cost-effective service rollout
▶ Intuitive GUI based control
▶ Centralized core network architecture

Key features
▶ 3GPP Release 14 support
▶ NTP management
▶ Time synchronization based on SYNC protocol
▶ Purely software defined network functions
▶ HD audio and 4K/UHD video delivery
▶ x-MB interface with TSoIP support
▶ Multiservice support (up to 10 services)
▶ Multi-TX connections support (MBSFN up to 5 TX)
▶ M1 and M2 interfaces with static MCE configuration

Network functions

▶ **BM-SC**
Broadcast multicast service center is a 3GPP instance that provides membership and session control. One of the main tasks of the core entity is to ensure content synchronization, service announcements and security. The BM-SC sets up the FeMBMS session and initiates delivery of the content by pulling it from the content server

▶ **MBMS-GW**
Multimedia broadcast multicast service gateway distributes FeMBMS user plane data to the transmitters using IP multicast and performs FeMBMS session control signaling. It acts as a mobility anchor and provides service continuity

▶ **MCE**
Multicell/multicast coordination entity can be a separate entity or a part of eNodeB/transmitter. The main role of the MCE is to manage the broadcast/multicast-related radio resources such as the modulation and coding scheme (MCS)

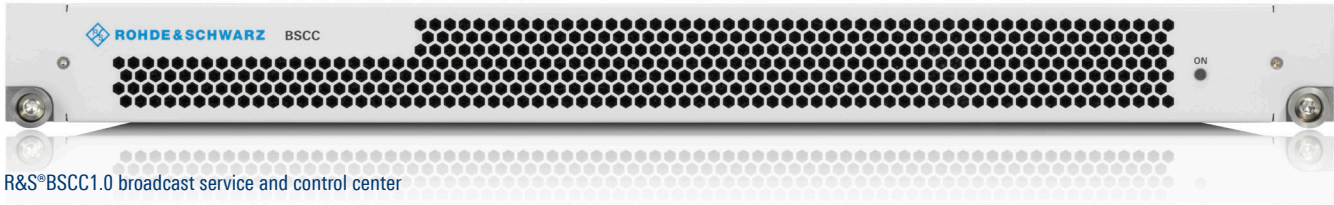▶ **MME**
Mobility management entity, a core network element
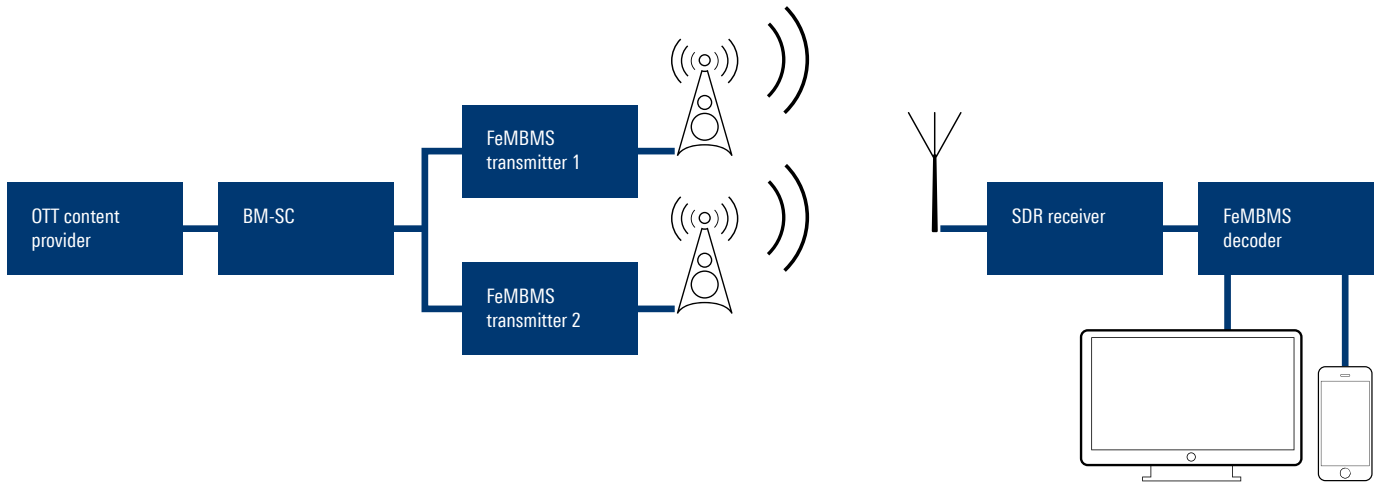
APPLICATIONS

Automotive (V2X)	IoT (Smart home appliance)	Media and entertainment (Mobile TV)	Public safety (Natural disasters)

R&S®BSCC1.0 broadcast service and control center

5G BROADCAST ARCHITECTURE

SERVICE CARE

Rohde & Schwarz provides comprehensive support that meets the unique needs of your business, enables you to ensure your services and delivers the seamlessness your customers expect. R&S®BSCC1.0 service care and service care advanced offer flexible and progressive service level agreements (SLA). Their purpose is to proactively detect, isolate and help resolve issues that can affect custom-

er experience, as well as measure actual improvements in services. For the R&S®BSCC1.0, service care includes several key benefits such as general software updates, major software upgrades, technical expert support, hotline support, advanced hardware replacement and technical training.

ORDERING INFORMATION

Designation	Type	Order No.
Broadcast service and control center	R&S®BSCC1.0	2511.9201.10

Service that adds value
- ► Worldwide
- ► Local und personalized
- ► Customized and flexible
- ► Uncompromising quality
- ► Long-term dependability

Rohde & Schwarz

The Rohde & Schwarz electronics group offers innovative solutions in the following business fields: test and measurement, broadcast and media, secure communications, cybersecurity, monitoring and network testing. Founded more than 80 years ago, the independent company which is headquartered in Munich, Germany, has an extensive sales and service network with locations in more than 70 countries.

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Sustainable product design
- ► Environmental compatibility and eco-footprint
- ► Energy efficiency and low emissions
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Certified Quality Management
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ISO 14001

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www.training.rohde-schwarz.com

Regional contact
- ► Europe, Africa, Middle East | +49 89 4129 12345
  customersupport@rohde-schwarz.com
- ► North America | 1 888 TEST RSA (1 888 837 87 72)
  customer.support@rsa.rohde-schwarz.com
- ► Latin America | +1 410 910 79 88
  customersupport.la@rohde-schwarz.com
- ► Asia Pacific | +65 65 13 04 88
  customersupport.asia@rohde-schwarz.com
- ► China | +86 800 810 82 28 | +86 400 650 58 96
  customersupport.china@rohde-schwarz.com