

Sound/TV Switching Network and Outside Broadcasts.

1 Subject matter of the terms and conditions

The following terms and conditions, in conjunction with the German Telecommunications Act (hereinafter referred to as TKG), govern the provision of MEDIA BROADCAST sound, television and control circuits in the sound/TV switching network and for sound/TV outside broadcasts as well as the provision of broadcast packages and ATM BS AÜ (ATM Broadcasting Service for Outside Broadcasts) for sound/TV outside broadcasts by MEDIA BROADCAST GmbH (hereinafter referred to as MEDIA BROADCAST).

2 Scope of services

Subject to technical and operational feasibility, MEDIA BROADCAST shall provide the customer with circuits, lines and equipment in accordance with the interface description given below.

2.1 Switching network

2.1.1 Installation

MEDIA BROADCAST shall provide the circuits for the agreed period of time. The circuits shall be installed by MEDIA BROADCAST, terminated with a delivery point and handed over to the customer with the interfaces (transmission or access parameters) shown below.

2.1.2 Use of the circuits

MEDIA BROADCAST shall enable the customer to transmit sound and television signals in accordance with the specified interface requirements. The circuits for transmitting sound signals and television signals in the sound/TV switching network run between the switching network nodes of MEDIA BROADCAST. Access by the customer to these switching network nodes is not the subject matter of this agreement.

2.2 Outside broadcasts

The connection is via line-conducted transmission paths, terrestrial radio links or satellite (SNG) to one of the two terminal ends of the connection. MEDIA BROADCAST shall select the communication media used for implementing the connection.

If the customer requires a specific communication medium to implement a connection, MEDIA BROADCAST shall perform this service, subject to technical and operational feasibility, by agreement for an additional charge in accordance with the price list in effect at the time.

The prerequisite for this is that the customer has his own connection to the switching network or, in the case of radio or satellite transmission, his own receiving equipment at the other terminal end.

By agreement and subject to technical and operational feasibility, MEDIA BROADCAST shall establish a connection to the switching network or install the relevant receiving equipment for an additional charge in accordance with the price list in effect at the time.

2.2.1 Installation

MEDIA BROADCAST shall provide the circuits, lines and ATM BS AÜ for the agreed period of time. The circuits or lines shall be installed by MEDIA BROADCAST, terminated with a delivery point and handed over to the customer with the interfaces (transmission or access parameters) shown below.

2.2.2 Use of the connections

MEDIA BROADCAST shall enable the customer to transmit sound and television signals in accordance with the specified interface requirements.

2.2.3 Use of Broadcast Phone and Broadcast ISDN

MEDIA BROADCAST shall enable the customer to handle broadcast-concurrent communication during outside broadcasts and to transmit sound signals in accordance with specified interface requirements. For this purpose, and subject to technical and operational feasibility, MEDIA BROADCAST shall provide the customer with a Broadcast Phone or Broadcast ISDN service, including any necessary additional services, in a network area and assign him a call number from the numbering space allocated by the German Federal Network Agency. The network area corresponds to the network area of the telephone service. Broadcast Phone is used for broadcast-concurrent communication and Broadcast ISDN for broadcast-concurrent communication and/or sound transmission.

In the case of connections between the Broadcast ISDN line and other Broadcast ISDN or Euro ISDN lines, the transmission rate shall be 64 kbit/s. In addition, connections to lines of other networks shall be possible. The transmission mode and the usable transmission rate may change owing to the technical parameters of the other networks. International calls, the possibility of setting up call-by-call connections via other network operators and calls to certain numbers are technically precluded.

Subject to technical and operational feasibility, the connections shall be established by MEDIA BROADCAST with a mean transmission probability of 97.0%. Owing to the economic dimensioning of the MEDIA BROADCAST network, the customer cannot anticipate that it will be possible at all times to set up a call.

2.2.4 Use of ATM BS AÜ (ATM Broadcasting Service for Outside Broadcasts)

MEDIA BROADCAST shall enable the customer to transmit TV signals via the ATM Broadcast Services network with a 270 Mbit/s SDI interface and digital sound components. In order to do this, the customer at the other terminal end must have an ATM Broadcast Services line provided by MEDIA BROADCAST. The customer can set up switched virtual connections from the other terminal end, or permanent virtual connections can be provided.

2.2.5 Use of R2 Link

For the purpose of transmitting sound signals and handling broadcast-concurrent communication, MEDIA BROADCAST shall provide basic transmission capacity in accordance with specified interface requirements. Bidirectional R2 Link connections shall be provided.

2.2.6 Use of SNG and TVRO

MEDIA BROADCAST shall enable the customer to broadcast (SNG) and receive (TVRO) sound and TV signals via satellite. The signals shall be received or provided in accordance with the specified interface requirements. The provision of satellite transponder capacity is not the subject matter of this agreement.

3 Duties and obligations of the customer

In particular, the customer has the following duties:

- a) Pay the agreed charges in due time. For any check not paid or any debit advice not honored or returned, the customer shall reimburse MEDIA BROADCAST for the costs incurred to the extent that the customer was responsible for the event giving rise to the costs.
- b) Provide any electricity needed for installation, operation and maintenance of the circuits or lines and, if required, the potential equalization including earthing at his own expense.
- c) Provide MEDIA BROADCAST with a suitable site for the transmission equipment required for outside broadcasting (e.g., OB van).
- d) Provide MEDIA BROADCAST with the delivery signal directly at the connecting unit for the transmission equipment in the case of outside broadcasting.
- e) Reimburse any costs incurred by MEDIA BROADCAST for checking the equipment following submission of a fault report, provided such checks show that the fault was not in MEDIA BROADCAST's equipment.
- f) Have all maintenance and modification work on the circuits or lines performed solely by MEDIA BROADCAST.
- g) The customer shall provide MEDIA BROADCAST's employees with access to his property and any buildings located thereon at his own expense, to the extent that this is necessary to complete testing, installation and maintenance work.

4 Use by third parties

The customer shall also pay the charges incurred as a result of authorized or unauthorized use of the circuits or lines by third parties if, and to the extent that, the customer is responsible for such use.

5 Terms of payment

- 5.1 The prices shall be payable after the service has been provided.
- 5.2 The amount due must be credited to the account specified in the bill no later than on the fourteenth day after receipt of the bill, or the competent accounting office must have received a check for the amount shown on the bill by that date. In the event that the customer furnishes a direct debit authorization, MEDIA BROADCAST shall debit the agreed account with the billed amount.

6 Objections

Any objections to the usage-dependent prices charged by MEDIA BROADCAST shall be lodged in writing with MEDIA BROADCAST immediately after receipt of the bill. MEDIA BROADCAST must receive objections within eight weeks after receipt of the bill. If the customer fails to raise the objections in time, the bill shall be deemed to be accepted; MEDIA BROADCAST shall make specific reference in the bills to the consequences of failing to raise an objection in time. This stipulation shall be without prejudice to any legal claims the customer has in the event of objections filed after the deadline.

7 Changes in general terms and conditions, service specifications and prices

- 7.1 If there is any price regulation, MEDIA BROADCAST shall be obligated to agree only those prices or price-relevant elements of the general terms and conditions and service specifications that the German Federal Networks Agency has

approved, reviewed or decreed by way of order. Agreements containing other prices or price-relevant elements shall be effective provided that the approved, reviewed or decreed price or price-relevant element replaces the agreed price or price-relevant element. MEDIA BROADCAST shall notify the customer in writing about any such changes. In the event of an increase in price or other changes to the disadvantage of the customer, the customer may terminate the agreement effective from the time the change goes into effect. MEDIA BROADCAST shall make specific reference to this special termination right in the change notification. Notice of termination must be received within six weeks after receipt of the notification.

- 7.2 If MEDIA BROADCAST intends any other changes to its general terms and conditions, service specification or prices, the customer shall be notified in writing no later than six weeks prior to the effective date of the changes. Any amendment to the general terms and conditions or service specifications and any price increase shall entitle the customer to terminate the agreement without notice, effective from the time the change goes into effect. MEDIA BROADCAST shall make specific reference to this special termination right in the change notification. If the customer does not terminate the agreement in writing within six weeks after receipt of the change notification, the changes shall become part of the agreement effective from the time they go into effect.

8 Cancellation of the order

If the customer cancels the order before the circuit or line has been handed over ready for operation or before agreed switching work has been carried out, he shall reimburse MEDIA BROADCAST for any expenses incurred for the work performed and for removing telecommunications equipment already installed where this becomes necessary due to the cancellation, but not more than the price (basic price) agreed for the provision or switching.

9 Fault clearance

MEDIA BROADCAST shall initiate action at any time of day or night, 7 days a week, to eliminate faults after being notified thereof and, subject to technical and operational feasibility, shall clear the fault.

10 Miscellaneous

- 10.1 If the customer, in turn, uses the contractually agreed services to provide telecommunications services for the public, MEDIA BROADCAST shall assume liability with respect to providers of telecommunications services for the public in accordance with the general legislation subject to the proviso that the liability for financial loss caused through negligence is limited to EUR 12,500 for each of the other provider's end customers who have suffered damage. In this case, the sum of all claims for damages shall be no more than ten million euros for each damage-causing event pursuant to § 44a TKG. If the sum of the individual claims for damages exceeds the upper limit, the compensation shall be reduced in proportion to the ratio between the total claims for damages and the upper limit.
- 10.2 The customer shall have the right to transfer the rights and obligations under this agreement to a third party only with the prior written consent of MEDIA BROADCAST.
- 10.3 The provisions of the German Product Liability Act shall remain unaffected.

10.4 The contractual relations between the parties shall be subject to German law.

Description of interfaces for circuits in the sound/TV switching network

Type of circuit	Transmission frequency range or delivery signal	Signal transfer/delivery level	Input/output resistance	Signal-to-noise ratio	Connecting unit
15 kHz sound circuit (two circuits are required for stereo operation)	40 Hz to 15 kHz	0 dBr or -3 dBr max. sound signal level: + 9 dBu0s	$\geq 600 \Omega$ / $\leq 35 \Omega$	≥ 57 dB, analyzed as per ITU-R Recommendation BS.468	Socket as per DIN 41 628 or terminal strip
Television circuit (analog)	10 Hz to 5 MHz	CVBS signal Input: $U_{pp} = 0.7$ V (after equalization) Output: $U_{pp} = 1$ V	75Ω / 75Ω	≥ 55 dB, limited and analyzed as per ITU-T Recommendation J.61 (CMTT.567)	Coaxial socket BNC or 4/13
Television circuit (digital) with digital sound component AES/EBU	270 Mbit/s SDI 3,072 Mbit/s	$800 \text{ mV} \pm 10 \%$ Jitter ≤ 0.2 UI 2 to $7 V_{pp}$	75Ω $110 \Omega \pm 5 \%$	Component codec Telekom non-transparent ITU-R Recommendation 647-2	BNC 75Ω XLR
Four-wire control circuit	300 Hz to 3.4 kHz	+ 9 dBr / - 17 dBr	600Ω / 600Ω	≥ 40 dB, analyzed as per ITU-T Recommendation O.41	Terminal strip
Four-wire sound circuit	300 Hz to 3.4 kHz	0 dBr or -3 dBr max. sound signal level: + 9 dBu0s	$\geq 600 \Omega$ / for load 600Ω	≥ 34 dB, analyzed as per ITU-R Recommendation BS.468	Socket as per DIN 41 628 or terminal strip

Description of interfaces for connections for sound/TV outside broadcasts

Type of circuit	Transmission frequency range or delivery signal	Signal transfer/delivery level	Input/output resistance	Signal-to-noise ratio or transmission	Connecting unit
Television circuit R140 Link (only possible with line-conducted implementation) with digital sound component AES/EBU	270 Mbit/s SDI 3,072 Mbit/s	$800 \text{ mV} \pm 10 \%$ Jitter ≤ 0.2 UI 2 to $7 V_{pp}$	75Ω $110 \Omega \pm 5 \%$	Component codec Telekom non-transparent ITU-R Recommendation 647-2	BNC 75Ω XLR
Television circuit R140 Link, analog, with analog sound component	10 Hz to 5 MHz 40 Hz to 20 kHz	CVBS signal Input: $U_{pp} = 0.7$ V (after equalization) Output: $U_{pp} = 1$ V 0 dBr or -3 dBr max. sound signal level: + 9 dBu0s	75Ω > $47 \text{ k}\Omega$ or 600Ω / < 20Ω or 600Ω	≥ 55 dB, limited and analyzed as per ITU-T Recommendation J.61 (CMTT.567) $\geq + 62$ dBq0ps, analyzed as per ITU-R Recommendation BS.468	Coaxial socket BNC or 4/13 XLR
Broadcast ISDN, incl. audio codec for 15 kHz sound circuit	40 Hz to 15 kHz	Input+ 6 dBr Output: - 20 dBr max. sound signal level: + 9 dBu0s = 0 dBr	ISDN switched connection (DSS 1 protocol) 1 B channel (64 kbit/s) or 2 B channels (128 kbit/s)	ISO/IEC 11172-3 Layer III	XLR plug connector

Type of circuit	Transmission frequency range or delivery signal	Signal transfer/delivery level	Input/output resistance	Signal-to-noise ratio or transmission	Connecting unit
Broadcast ISDN, incl. four-wire control circuit	300 Hz to 3.4 kHz	Input: + 9 dBr Output: - 17 dBr 0 dBm = 0 dBr	ISDN switched connection (protocol DSS 1) 1 B channel (64 kbit/s)	ITU-T Recommendation G0.711	XLR plug connector
SNG / TVRO with digital sound component AES/EBU	270 Mbit/s SDI 3,072 Mbit/s	800 mV ± 10 % Jitter ≤ 0.2 UI 2 to 7 V _{pp}	75 Ω 110 Ω ± 5 %	MPEG-2, 4:2:2 and 4:2:0 MPEG Layer II	BNC 75 Ω XLR