



Internet Video Live Streaming Guidelines

Technical Guide for the Implementation of Internet Video Live Streaming



1 TECHNICAL REQUIREMENTS

1.1 Provision of a dedicated physical Internet connection with a minimum UPLOAD bandwidth of 5 Megabit/sec per table

Sportradar Media Services requires access to a dedicated physical Internet connection with a minimum UPLOAD bandwidth of 5 Megabit/sec per table for Internet Video Live Streaming and Live Scoring purposes.

As a high amount of data is constantly uploaded to a streaming server while an Internet Video Live Stream is processed, a reliable high UPLOAD bandwidth – in this case 5 Megabit/sec per table – is crucial for a successful production and broadcast.

Please make sure to get following ports open:

TCP-Port 80, 443 and 1935 (incoming/outgoing)
 UDP-Port 2077, and 2088 (incoming/outgoing)

This is crucial for our streaming production.

Please note that the provided internet connection cannot be shared with any other party (e.g. Press/Media, tournament office, et cetera).

The required physical internet connection with a minimum UPLOAD bandwidth of 5 Megabit/sec per table has to be ordered by the contractual partner or the local tournament organisation respectively in due time and a written confirmation shall be forwarded to Sportradar Media Services no later than 3 weeks prior to the event start.

In case of problems or doubts, please consult Sportradar Media Services, in order to secure the booking and installation of the required internet service on-site

Requirements:

- Provision of a dedicated physical Internet connection with a minimum UPLOAD bandwidth of 5 Megabit/sec per table
- Installation of and access to the dedicated Internet connection at the main streaming and production working position (as in 1.2.)
- Flat rate for generated streaming traffic
- Provision of a router with at least 4 Ethernet ports (DHCP configuration)
- Installation and testing on-site no later than 3 days in advance of the production start
- Make sure to open the TCP and UDP ports mentioned above

1.2 Provision of a main streaming and production working position

A main working position in the area of the two main competition tables shall be provided.

Please take into consideration that the position is located in a way that the cabling distance (to the main camera at main tables/table 1 and table 2) does not exceed a distance of 75 meters.



Sportradar Media Services main working position at the ITTF World Tour, Korea Open 2016

Requirements:

- Access to the dedicated internet connection with a minimum UPLOAD bandwidth of 5 Megabit/sec per table (as in 1.1.)
- Collection of the host broadcaster's production signal directly at the working position (as in 2.1.)
- Working space: minimum 5m x 1m
- Provision of standard power sockets (230 V)
- Provision of tables, chairs
- Secure overnight equipment storage (e.g. security staff, lockable production room, ...)

1.3 Provision of a live scoring working position on court

For internal purposes Sportradar Media Services will operate a live scoring system for each produced table.

It is therefore essential to have a full and unobstructed view onto the table, the scoreboard and the referee (see example below).

In case the main streaming and production working position is located in a way that a clear view is NOT given, an additional working position for one technician operating the live scoring system on a laptop, has to be provided.

The generated data/traffic is at a minimum rate, which is why a dedicated Internet connection will not be required for the live scoring system, but any available LAN (local area network) on-site shall be shared with unas media productions.

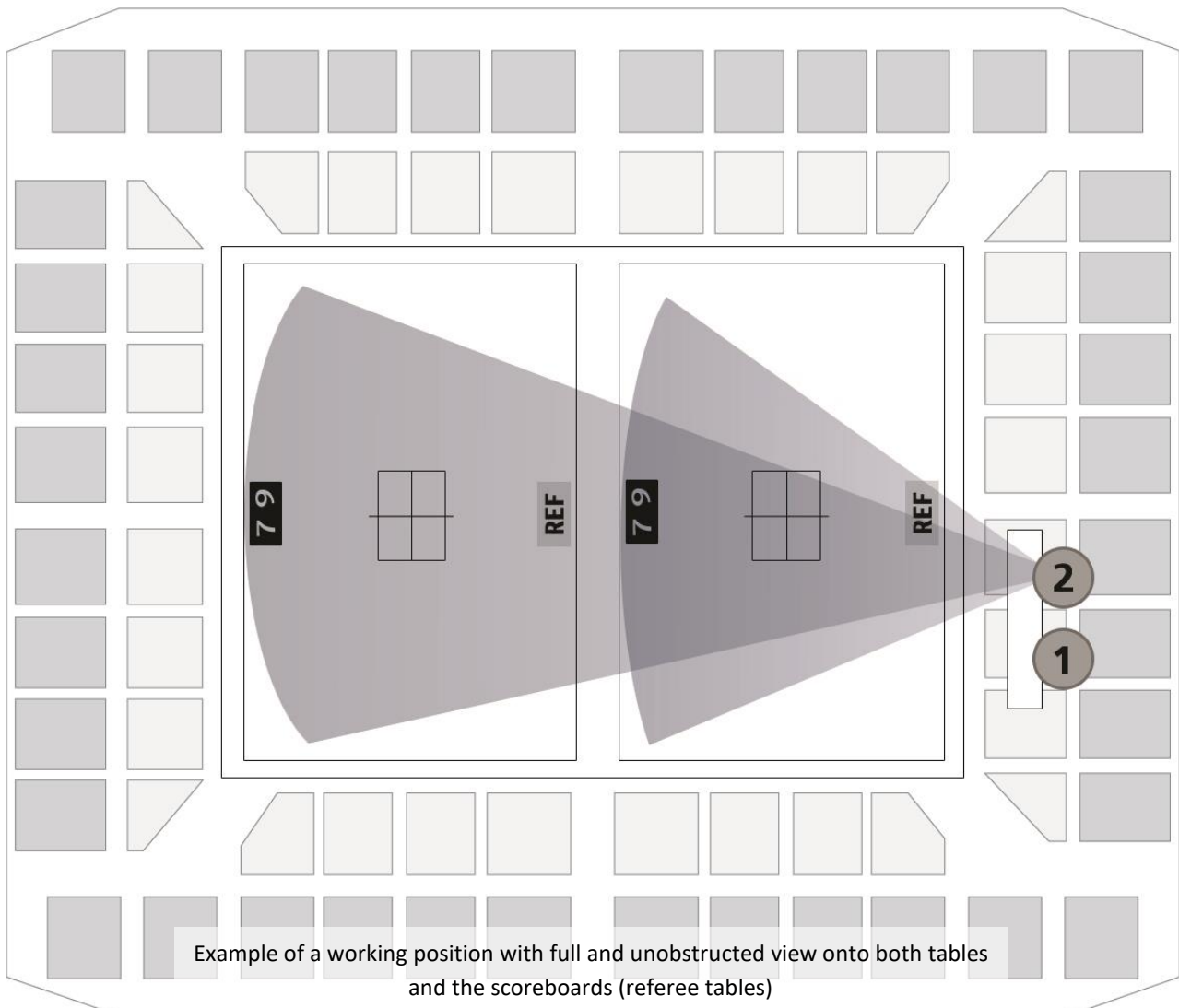
In case of the provision of a wireless network, the local IT department has to provide a security-enabled (password protected) and dedicated connection as well as secure the best possible signal reception at the working position.

Requirements:

- Access to a physical Internet connection or a dedicated wireless network (WiFi) directly at the working position
- Working space for 1 live scoring operator per table
- 1 table
- 1 chair
- Provision of standard power sockets (230 V)
- A direct, unobstructed view onto the table, the referee and the scoreboard

Working Positions

- 1: Main streaming and production working position
- 2: Live scoring working position (full and unobstructed view of both tables, scoreboards and referee's)



Example of a working position with full and unobstructed view onto both tables and the scoreboards (referee tables)

2 PRODUCTION SETUP

2.1 General Information

Sportradar Media Services will always inform the ITTF about the production program in advance of a tournament.

The standard production is normally set for 2 tables.

ALL matches scheduled on the main competition tables will be produced with 2 static cameras for internet live streaming purposes.

In case a TV production is planned and in place, Sportradar Media Services will always collect the full production signal from the host broadcaster including graphics and English commentary (if available).

2.2 Collection of the host broadcaster's production signal

All matches produced by the host broadcaster will be collected by Sportradar Media Services at the main streaming and production working position (as in 1.2.)

The host broadcaster shall be informed about the signal collection and the cabling (and therefore the required cables) from the OB Van to the main streaming and production working position in due time and in advance of the production start.

It is highly recommendable to notify the host broadcaster about these requests in advance of the tournament start, in order to secure the signal collection and the audio and video cabling.



SD/HD-SDI:

With embedded audio (international sound with English commentary if available)

OR

Video format:

Analogue COMPOSITE, PAL or NTSC

BNC or CINCH/RCA jack

Audio format:

Analogue, mono or stereo

Full-Mix

International sound plus English commentary (if available)

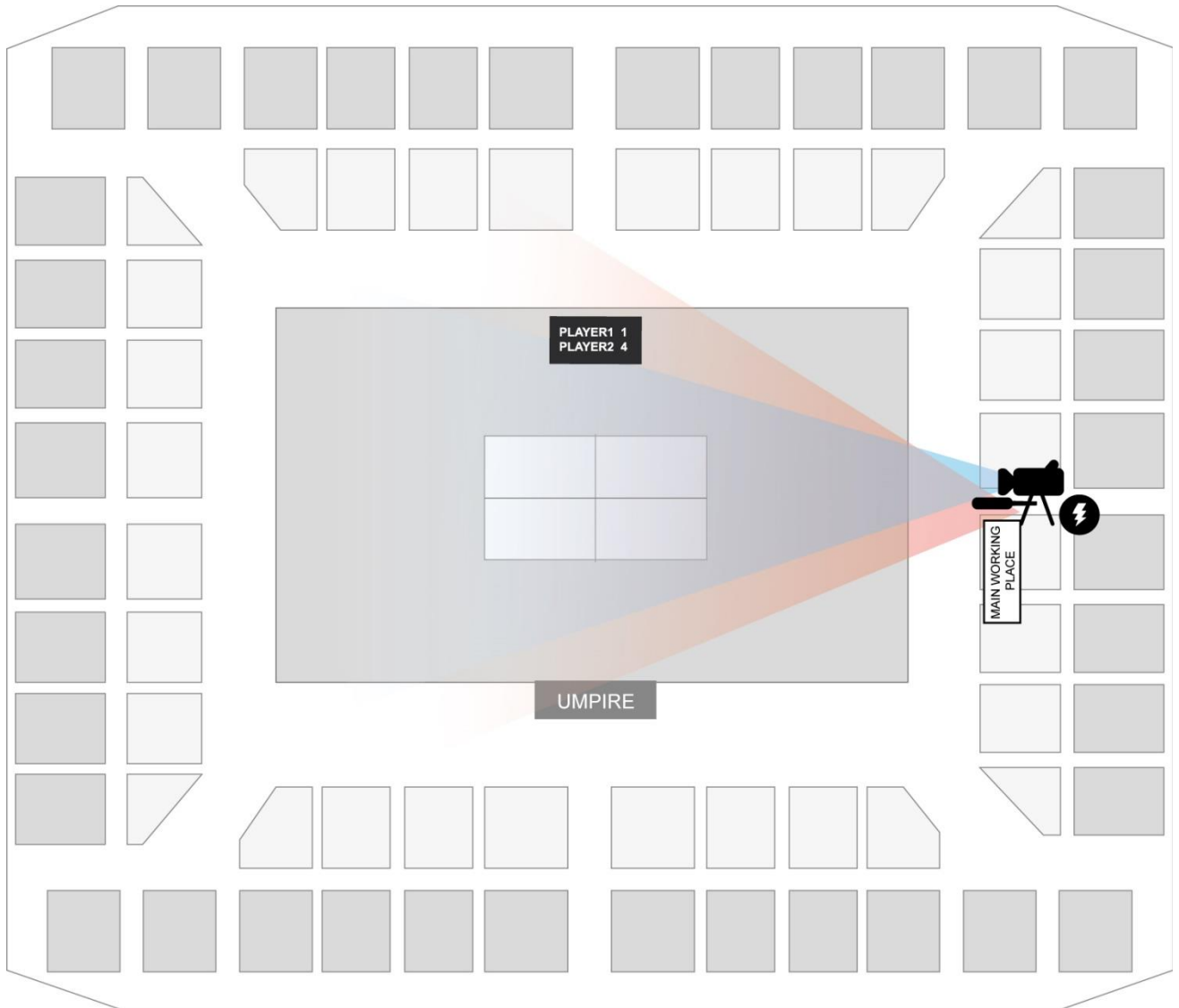
XLR/Cannon or CINCH/RCA jack

OB vans of the host broadcaster at the 2012 World Team Table Tennis Championships in Dortmund

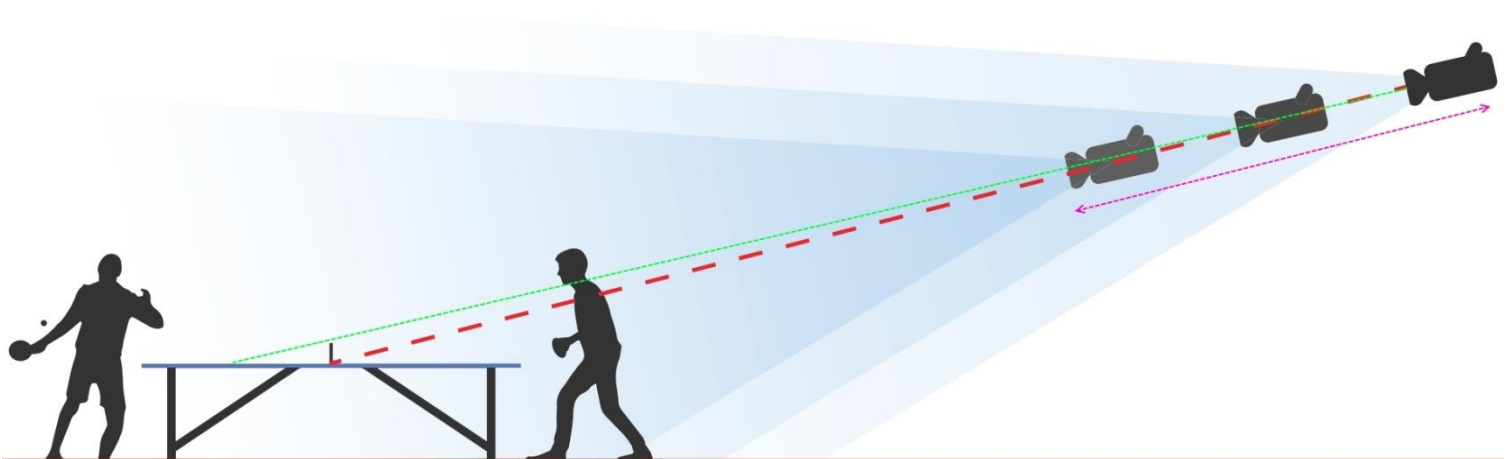


2.3 Production Set-up

The Standard Set-up for 1 Table:



As indicated in the graphic above, the main cameras are located at the end of the court, in an elevated position. Both table sides have to be clearly visible from the provided camera position



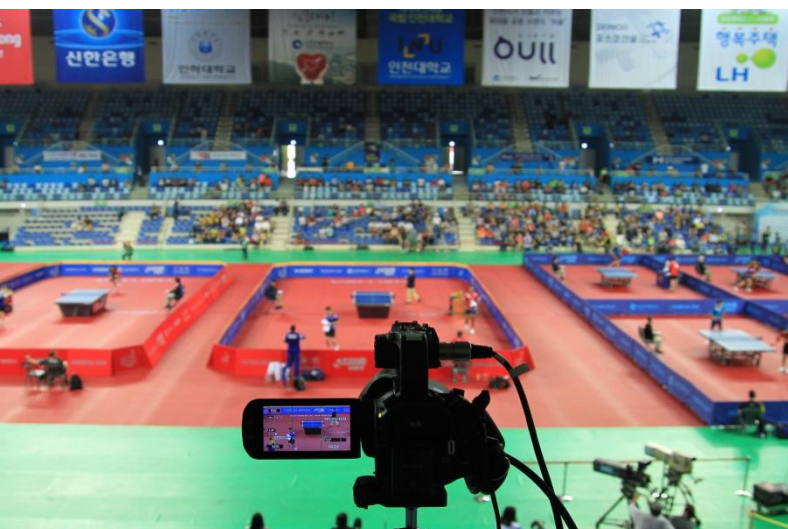
The camera position has to be chosen in a way that both sides of the table are clearly visible. Therefore the height of the position depends on the distance from the camera to the table.



A clear, unobstructed view onto the court is a basic requirement, because the camera will be in a static position and operated automatically

Requirements:

- Provision of a dedicated camera position, centrally located and elevated, at the end of the court
- A direct, unobstructed view onto the court and table from an elevated, central position
- Provision of standard power sockets (230 V) directly at the camera position



As indicated above, Sportradar Media Services will set up one main camera at each production court.

As the camera will be set to automatic operation only, the location has to be chosen in a way that a full court shot is possible and the camera view will not be obstructed or affected by spectators or any other third party.

At best, a dedicated camera platform in or behind/above the spectators' stand will be made available for the duration of the tournament by the contractual partner and local organisation respectively.

The contractual partner/local organisation is requested to provide the best possible camera position as determined before.



As shown in the picture below the microphones are attached to the tripod of the score cameras or the rods of the referee chair.





2.4 Rental of audio and video cables

Please note that Sportradar Media Services seeks to rent the required audio and video cables from a local provider, in order to not to have to ship them from the head office in Vienna.

Therefore the contractual partner shall assist with the rental of the required audio and video cables in advance of the tournament and identify local dealers, production companies or TV stations.

Cabling measures

Please note that each main camera has to be physically connected with the streaming equipment at the main streaming and production working position.

Therefore the technical director has to provide the cabling measures from each main camera and score camera to the main streaming and production working position.

Once the measures are available, a local dealer shall be consulted by the tournament and the rental fee forwarded to Sportradar Media Services.

The following cable types will be required:

- Analogue video cable (RG59) with BNC connector (example1)
- Analogue stereo microphone cable with male/female XLR connectors (example2)



ex.1 video cable (BNC)



ex.2 audio cable (XLR)

3 Organisational Requirements

3.1 Tournament dates/tournament program

The contractual partner and the tournament office respectively shall confirm the exact tournament dates (qualification/main draw) as early as possible in advance of the event.

Also, the tentative tournament program with the planned starting times shall be forwarded to Sportradar Media Services as early as possible.

3.2 Accommodation

Sportradar Media Services shall be informed about the official tournament hotels and special room rates that apply to the athletes and tournament staff.

3.3 Accreditation

The local organisation is requested to prepare accreditation badges for the on-site production team and full access to all tournament facilities and areas shall be granted.

The full team list will be communicated by Sportradar Media Services well in advance of the tournament start.

3.4 Schedule communication on site

The technical supervisor of the on-site production team and Sportradar Media Services respectively shall be included in the tournament mailing list, in order to receive the match schedule once it has been released.

Please note that Sportradar Media Services shall be integrated in all necessary tournament communication channels as any schedule change and revisions will have a great impact on the live streaming production and the delivery of our services.

In addition to this, it is necessary to always inform the main streaming and production working position in the case of a schedule change/revision due to an injury, forfeit, et cetera.

3.5 Main Contact

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