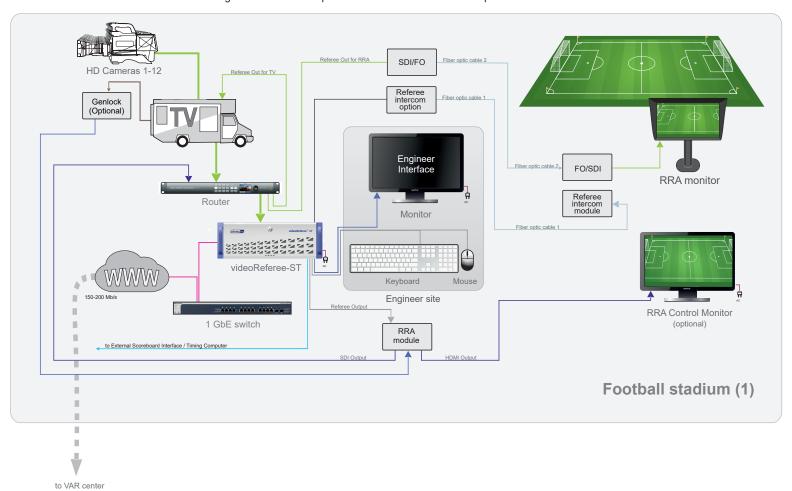


VAR solution for 12 cameras. Hybrid configuration for Local use and VAR center

Up to 12-camera Video Assistant Referee solution.

The servers and engineer's workplaces are located in the arena and 2 main +1 extra VAR+AVAR+RO remote workplaces - in VAR center.

The main camera images and Referee outputs of several matches can be duplicated to the VideoWall in VAR center.



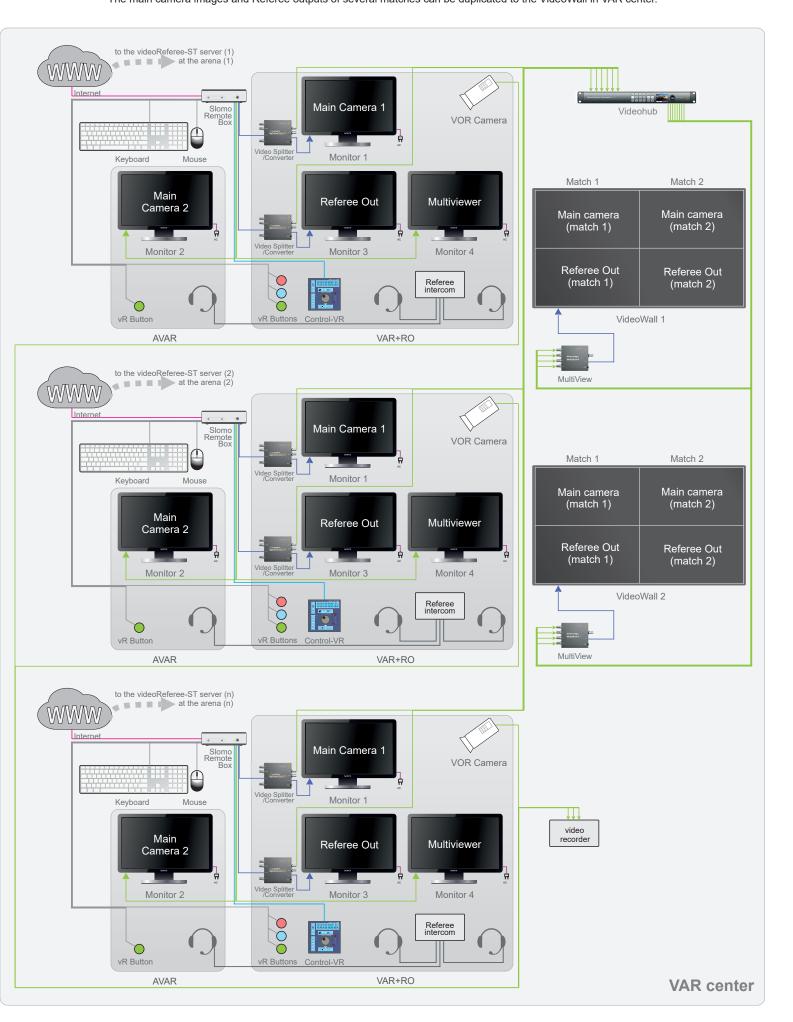


VAR solution for 12 cameras. Hybrid configuration for Local use and VAR center

Up to 12-camera FIFA VAR compliant video-refereeing solution.

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DESCRIPTION

The diagram shows the hybrid usage of the 12-channel <u>Slomo.tv</u>'s VAR system. The servers are installed in the dedicated rooms in the arenas (one on each arena) and are operated remotely from the VAR center, where the fully-functional VAR workplaces are located. The number of workplaces depends on the needs of the Federation or League.

The system has 12 SDI Inputs and can accommodate up to 12 HD cameras as well as using SSM cameras along with the standard speed cameras. (*Please remember, the number of channels required to connect a SSM camera corresponds to its shooting speed.*)

All camera signals are recorded to the server. Since this workflow does not require to send actual recording from cameras to the VAR center, it assures the safety of the video material recorded on the arena server and requires a minimal Internet bandwidth (200Mbit). If the connection is lost, the system continues recording and can be quickly switched to a local usage mode (should there be an additional VAR workplace deployed in the arena).

The VAR workplace contains the Control-VR panel, 4 referee buttons (one extra green button for the AVAR) and is equipped with 4 monitors, displaying the main camera, multiviewer and the referee interface in one of selected operational modes: "Delayed main camera", "1 or 2-4 cameras multiscreen", "frame-by-frame search", "Playback at a variable speed".

There could be several VAR teams working on different matches in the VAR center. If needed, it is possible to organize a Video Wall, which will display the main camera + Referee out from all matches.

The diagram additionally shows several available options: integration with a Referee intercom system, SDI output of the referee interface (Referee out) to the RRA (referee review area) monitor and to a TV broadcaster. The Referee output option allows not only reviewing the moment in the Referee Review Area on the pitch, but also provides the confidentiality and security of the process. This option allows having an additional separate SDI output for displaying the Referee output in the Referee Review Area (RRA) and to provide the Referee Output to the broadcaster. In this setup the referee monitor in the RRA and the output to the broadcaster are activated by pressing one button (the picture changes from still background to the video, prepared for the review). Players, coaches and spectators do not see neither the preparation of the video material for review nor what the referee sees.

The RRA module also has an HDMI output to which an additional monitor can be connected to control the video image outputted to the RRA monitor.