



Venue hardware, network & audio installation guide

Required equipment, LAN-to-HDMI displays, multi-TV routing, guest/staff access, and professional PA connections.

REQUIRED: Every venue supplies a compatible local server OR purchases a configured server separately through Cool Cat Games. The Games software and Display Adapter do not replace the server.

1 | What the venue needs

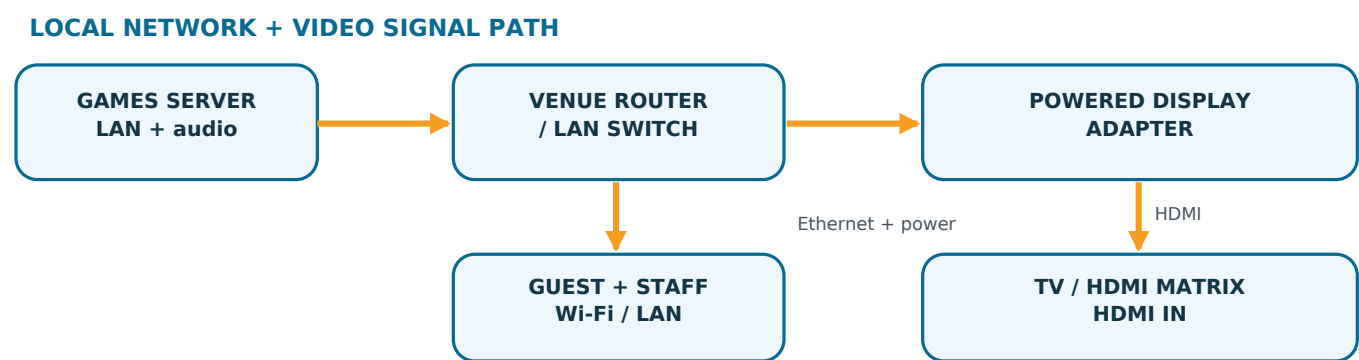
Local Games server	Compatible Linux mini PC/server running Cool Cat Games. Hosts guest, staff and admin interfaces and supplies audio.
Router + wired LAN	Venue router provides local IP addresses/network access. An Ethernet switch adds ports when needed.
Display equipment	TV(s) with HDMI input, plus powered Cool Cat Games Display Adapter(s). An HDMI splitter or matrix is optional.
Staff / admin devices	Browser-capable computer or tablet on an authorized wired LAN or Wi-Fi network. These are controls, not servers.
Sound system	Venue mixer/PA and amplification: amplifier for passive speakers, or powered PA speakers with line inputs.
Power + cabling	Separate approved power for each adapter, and power for server, router/switch, matrix, televisions and audio gear.

2 | Server specification and purchase

Recommended starting point: Intel N100-class mini PC or better, 8 GB RAM minimum (16 GB preferred), NVMe SSD, wired Ethernet, reliable power and cooling. Ubuntu Linux is the established installation target; other Linux distributions require compatibility confirmation. Earlier 2-core / 4 GB figures are legacy minimums, not recommended sizing.

Server hardware, configuration, network installation, cabling, HDMI matrix and audio integration are quoted separately unless explicitly included in the venue proposal.

At a glance | How the pieces connect





Network, displays & operations

Signal routing and access are separate: the LAN carries data; the Display Adapter creates HDMI video.

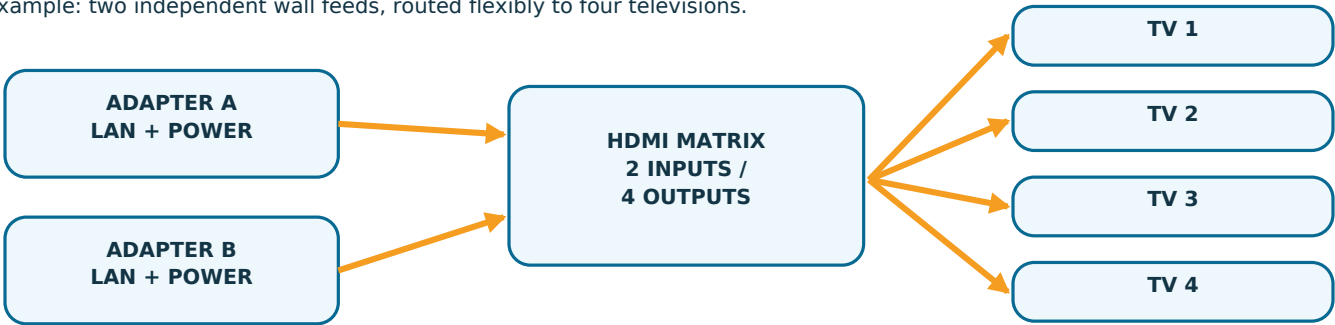
3 | Router, LAN and powered Display Adapters

Server Ethernet -> router/switch LAN -> Display Adapter Ethernet. Display Adapter HDMI OUT -> TV HDMI IN. Each Display Adapter also needs its own approved power supply. Ethernet must not be assumed to provide power. A router does not turn Ethernet into HDMI.

4 | More than one TV

Independent displays	One separately assigned, powered Display Adapter for each independent display feed. Each uses Ethernet, power and HDMI.
Same image on multiple TVs	One adapter HDMI OUT -> powered HDMI splitter/distribution amplifier -> multiple TVs. All TVs show the same feed.
Select different feeds	Two or more adapters -> HDMI matrix INPUTS -> several TV OUTPUTS. The matrix can select which existing feed each TV shows; it cannot invent additional feeds.
Installation checks	Size inputs/outputs for the room; confirm resolution, EDID/HDCP behavior, cable runs, extenders and matrix power.

Example: two independent wall feeds, routed flexibly to four televisions.



5 | Who connects, and how

Guests / players	Phone on permitted venue guest Wi-Fi -> scan screen QR code or open local game URL -> join in mobile browser. No app or adapter required on their phone.
Employees / hosts	Computer or tablet on staff Wi-Fi/wired LAN -> authenticated staff/host browser interface -> choose, schedule and run games.
Administrators	Authorized computer/tablet on approved management network -> authenticated admin interface -> configure system, accounts and display assignments.
Wi-Fi / security	Guest isolation may block access to local servers. Allow only the required player URL/port while protecting staff/admin interfaces. A local-only URL will not be reachable from cellular without a separately secured access path.



Professional venue audio & launch checks

Use a true line-level feed between the server and venue sound equipment.

6 | Audio connection: dedicated LINE OUT



Mixer -> amplifier -> passive speakers
OR mixer -> powered PA speakers

Server has LINE OUT	Connect the server's designated analog LINE OUT to the mixer/amplifier LINE INPUT using connector-appropriate L/R cable(s).
Server has NO LINE OUT	Use a Linux-compatible USB audio interface with dedicated LINE OUTPUTS; preferably two balanced 1/4-inch TRS or XLR outputs. USB -> interface -> venue LINE INPUT.
Mixer + passive PA	Interface LINE OUT L/R -> mixer line channels -> mixer MAIN OUT -> PA power amplifier -> passive loudspeakers (speaker-rated cable).
Mixer + powered PA	Interface LINE OUT L/R -> mixer line channels -> mixer MAIN OUT -> powered speaker line inputs. No separate power amp is needed for powered speakers.
Long cable runs	Prefer balanced line-level connections. For unbalanced output or hum, consult venue audio technician about suitable isolation/DI options.

DO NOT CONFUSE: A USB headphone DAC/amplifier (such as the pictured KB EAR adapter) is not the preferred dedicated LINE OUT solution. A speaker-level-to-line-level converter reduces an amplified speaker signal and does NOT provide USB-to-line audio. Never connect a power-amplifier speaker output to a line input.

7 | Venue commissioning checklist

LAN and guest join	Confirm server online; each adapter connected and powered; Wi-Fi guests can open player URL and successfully join from a QR code.
Displays and matrix	Check wall assignment, HDMI signal, matrix inputs/routes and actual picture on every TV.
Staff and admin	Verify staff can control a game and administrator access remains restricted.
Audio quality	Select correct USB interface in Linux (if used); confirm L/R routing, mixer gain, amplifiers, speaker coverage, hum and clean playback at event volume.
Final readiness	Label and secure connections; protect power supplies; verify router/Wi-Fi capacity and venue staff operating procedure.