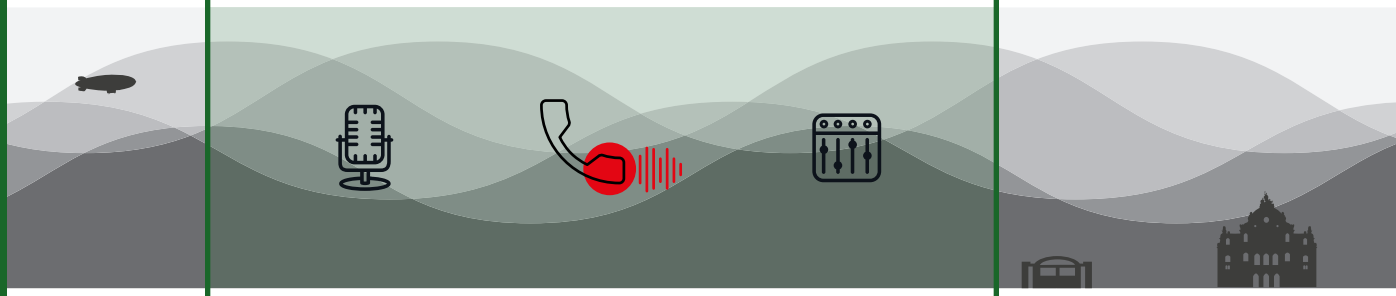
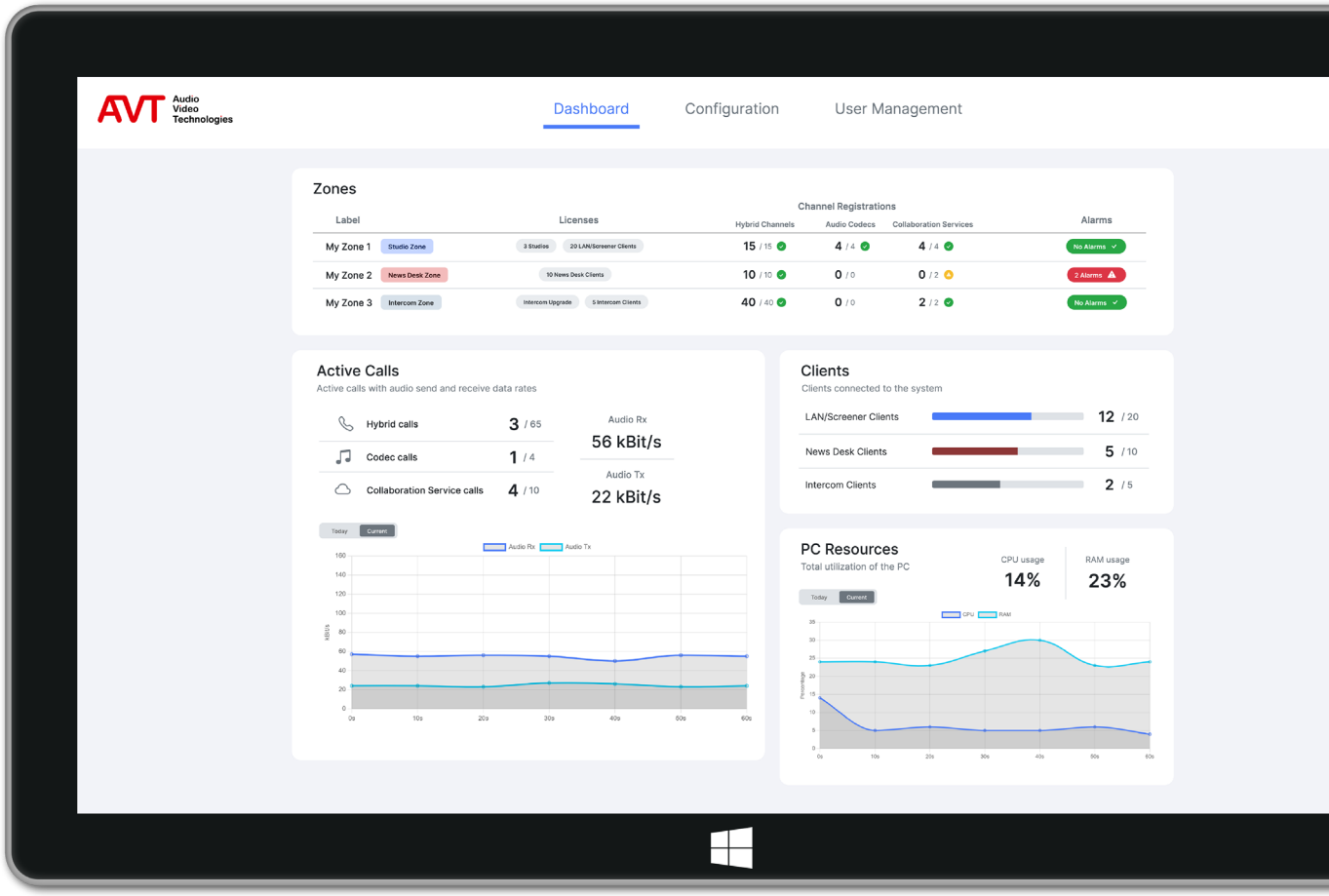
MAGIC Server



Telephone Hybrid & Audio Codec

Audio
Video
Technologies

MAGIC Server Basic & Professional (late Q1 2024)



MAGIC Server

- Software Telephone Hybrid & Audio Codec
- Basic: 1 to 8 VoIP lines
- Professional: 8 to 96 VoIP lines
- Support for all sound cards (Dante, Ravenna, AES67, analogue, digital...)
- Central administration & configuration
- LAN & Screener Web Clients
- Up to 24 studios
- Integration of MAGIC Collaboration Services
- Integration of OPUS and PCM audio codecs
- G.711/G.722

The **MAGIC Server** expands the telephone hybrid portfolio with a scalable, software-based telephone hybrid & audio codec server.

For smaller studios, for podcasters or for recording telephone interviews, the entry level **MAGIC Server Basic** offers a VoIP telephone channel, a web operating client and one studio. For talk shows, for example, the system can be expanded to up to 8 VoIP telephone channels and a second studio. For high-quality audio and also video transmissions, two stereo **Audio Codecs** and **Collaboration Services** such as **WebRTC** or **MS Teams** can also be integrated, making two of the maximum eight lines OPUS-, PCM-, WebRTC- and MS Teams-capable.

Compared to the Basic version, the **MAGIC Server Professional** offers significantly more resources, so medium and large broadcasters with growing requirements can expand the system at any time.

The system offers 8 to 96 VoIP telephone hybrid channels, 24 studios with 48 application-specific web control clients for presenters, screeners and technicians, 48 recording booths (**News Desks**) for telephone interviews and six **Intercom** groups for communication with correspondents or remote stations.

In addition, up to 24 of the 96 possible channels can be used for high-quality **stereo audio transmissions** (OPUS, PCM), and 48 audio or 24 audio/video WebRTC / MS Teams collaboration services can be added.

Both server variants can be run on a physical server as well as on a virtual machine, with the Basic variant also being able to be run on a current desktop PC / workstation. The VoIP connection is made - as with the hardware telephone hybrids - via individual SIP accounts of a local PBX or a cloud PBX.

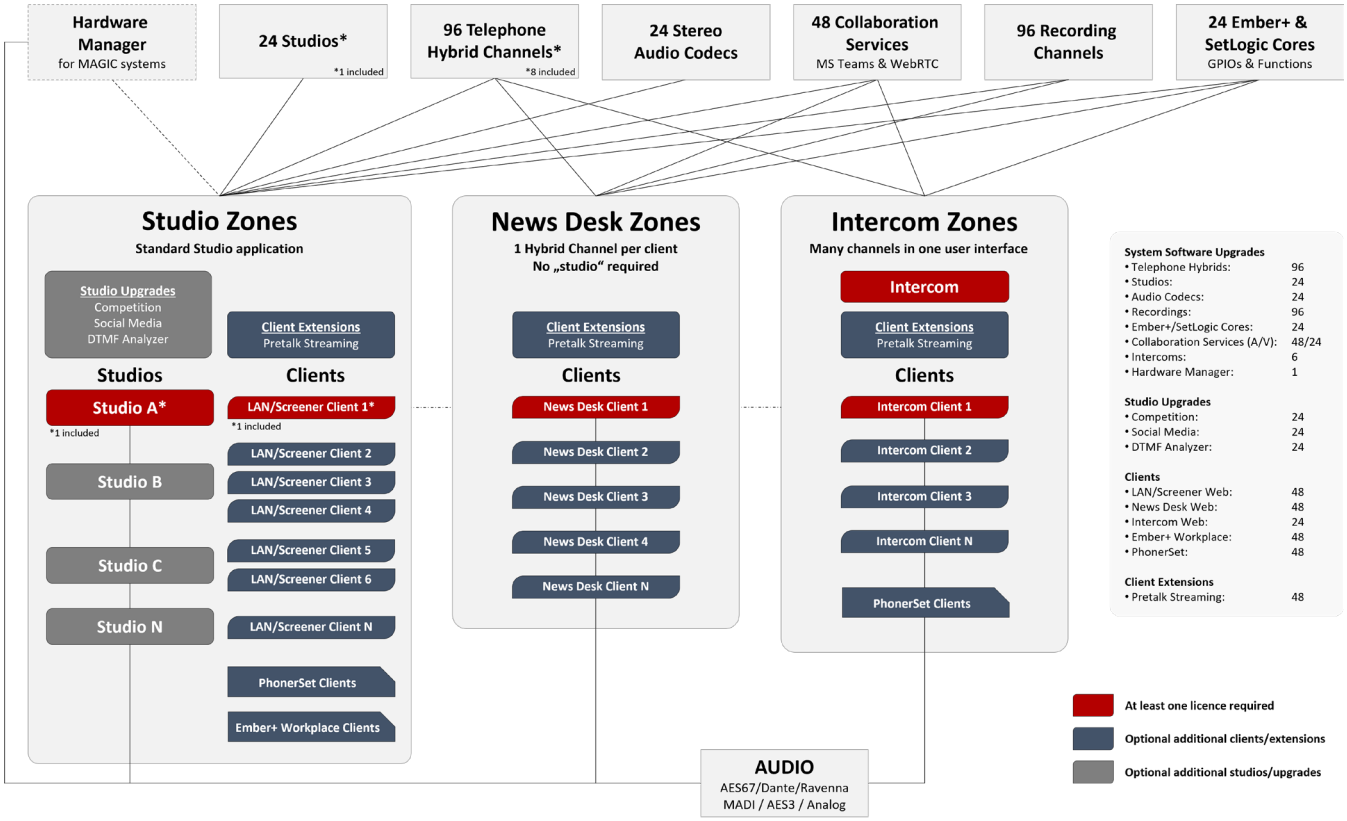
The MAGIC server supports the classic telephony standard G.711 (3.1 kHz audio bandwidth) as well as the much higher quality HD Voice standard G.722 (7 kHz audio bandwidth) by default.

Integration into the local audio network is possible via a virtual AES67 sound card with up to 192 channels, an external USB-Dante® / Ravenna / MADI sound card (RME Digiface) or even a classic internal or external ASIO-capable multi-channel sound card.
The MAGIC Server is configured via a modern and intuitive web interface that allows central management of all lines, studios and workplaces.

The web user interfaces for the respective workplaces/operating stations are also delivered via the server, so that an installation at the workplace is no longer necessary. The desired user view is controlled via a user login.

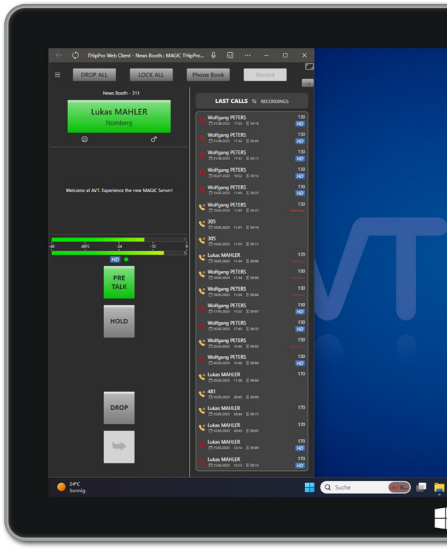
Users who already own AVT hardware telephone hybrids including audio codecs connected via ACconnect - and want to continue using them - can replace or supplement the classic PC operating clients with modern web clients using the optional **Hardware Manager** for the **MAGIC Server Professional**.
This does not change the audio and VoIP infrastructure connected to the hardware systems.
The Hardware Manager supports all AVT telephone hybrids (MAGIC TH1 Go / TH2plus / TH6 / THipPro family) and MAGIC ACip3 with ACconnect.
The web-based user interfaces significantly minimise the time required for a system update, as only the server needs to be updated. Installation at the operator stations is completely eliminated.

Licence Structure MAGIC Server Professional



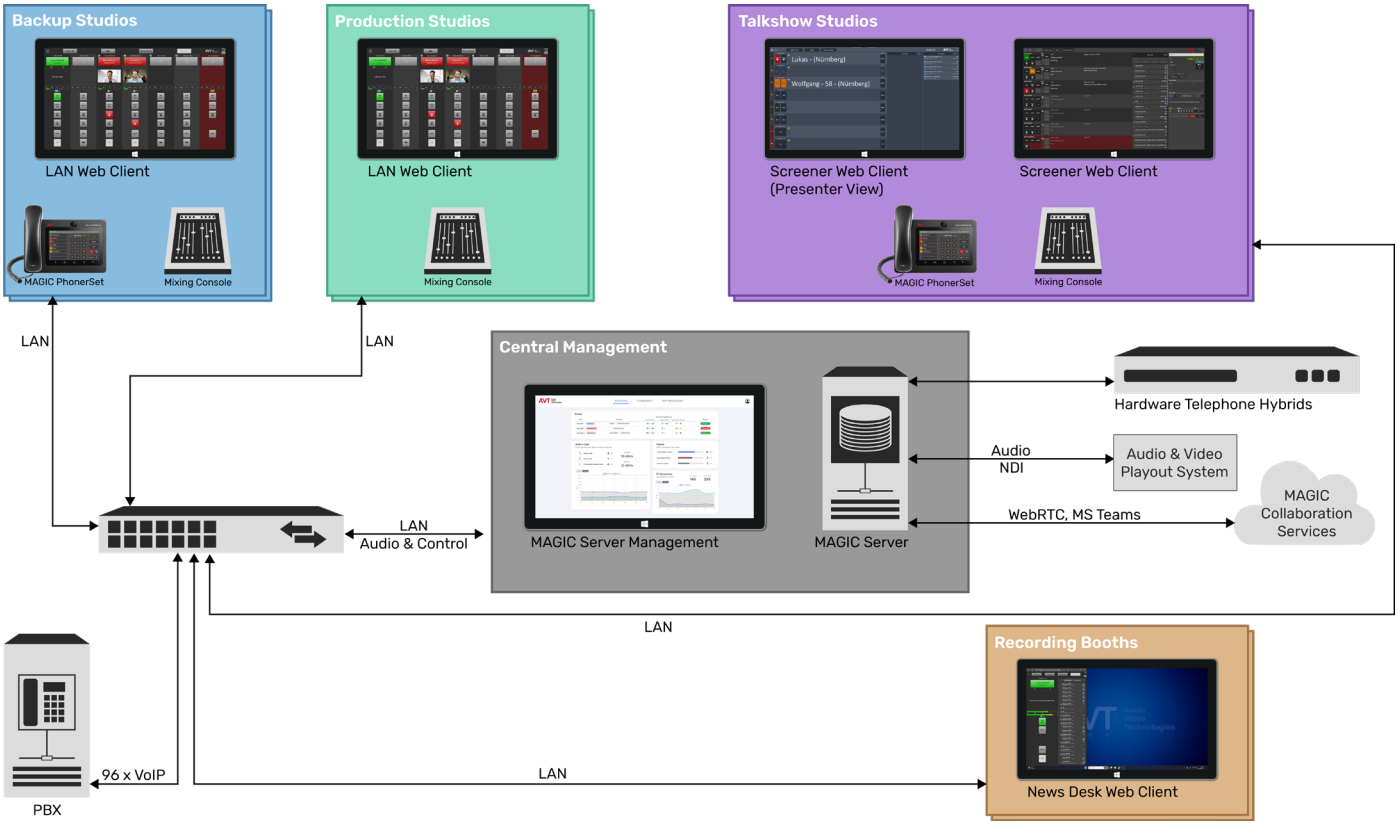
Client Options

MAGIC Server LAN Web Client (with A/V Collaboration Services)

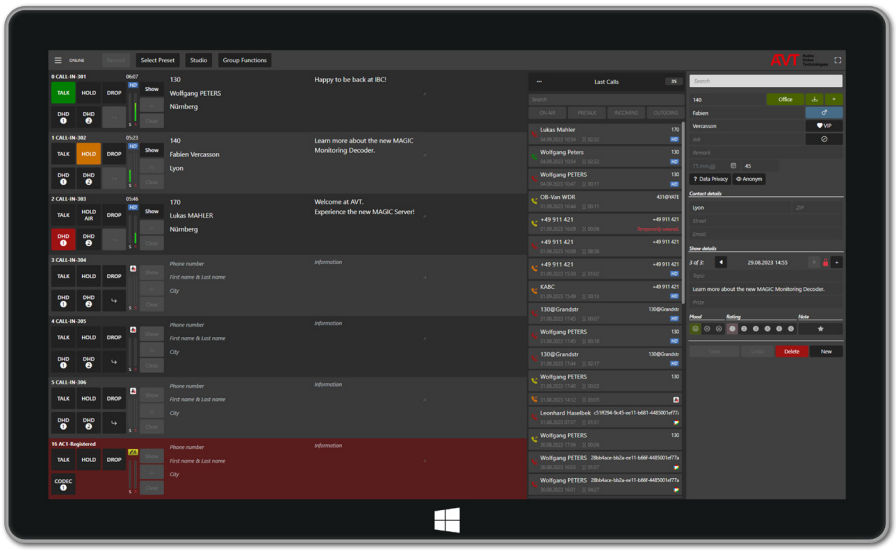


MAGIC Server News Desk

Example Application



Web Client (Window View)



MAGIC Server Screener Web Client

Applications and Options

Studio & Talk Show Applications

Talk shows and telephone interviews are a central component of classic radio operation. MAGIC Server allows line resources to be allocated to 2 (Basic) or 24 (Professional) studios. To each of these studios workplaces with differing views can be assigned individually. The combined **LAN/Screener Web Client** allows an optimised view for the presenter, for the screener, for the control room/technical staff as well as for the data manager for handling caller information.

Especially for remote operator stations that cannot simply be connected to an audio core, the **Pretalk Streaming Extension** for the LAN/Screener Web Client offers an easy way to connect audio. Pretalk calls can thus be made via a headset connected to the PC.

The **Recording** function enables telephone interviews to be recorded. This can be assigned to a workplace to provide a presenter or screener with a direct recording on-air or in the pretalk conversation.

Alternatively, each recording channel can be configured as an answering machine including individual announcement, recording duration, etc.

In addition to the web PC clients, workplaces that use a **PhonerSet** to operate individual or multiple telephone channels can also be set up in each studio.

For users who wish to integrate telephone hybrid channels into DHD or LAWO mixing console/VSM environments, this can be implemented via an **Ember+ Workplace** licence.

This requires the **Ember+/DHD SetLogic** upgrade (required per audio core), which provides a wide range of system and line information as well as control options via virtual GPIOs. In addition, a wide variety of functions for controlling and displaying information (e.g. name of a caller) is available. The Ember+ implementation supports both consumer and provider modes.

Users who play game shows with listeners or invite listeners to events (e.g. concerts) can do this comfortably via the **Competition & Event Management** Studio Upgrade.
This option allows the creation and evaluation of competitions, including the management of the prize contingent. Tickets for all participants can be managed for events. All lists can be exported as PDF or Excel files.

For game shows or sporting events, the **DTMF Analyzer** studio upgrade can be added. There are three modes to choose from: Standard, Gameshow and Event. While in standard mode only the digits received via DTMF are displayed, in gameshow mode the caller who answered the fastest is marked. In event mode, short text information is displayed instead of digits. For football matches, for example, reporters on site can inform the control room that a goal has been scored, even in hold mode.

The **Social Media** studio upgrade allows listeners to get in touch via social media. In addition to X (formerly Twitter), other services are planned.

News Desk Application for MAGIC Server Professional

For telephone interviews in small recording booths, the **News Desk Web Client** offers a simplified user interface. One telephone line is displayed per workplace. The telephone conversation can either be recorded externally or, more conveniently, via the optional central **Recording** function.

An optional **Collaboration Service** can also be assigned to the News Desks telephone channel, enabling connections via WebRTC and MS Teams. With WebRTC, high-quality recordings are possible due to the OPUS codec being used. The conversation partner only needs a PC with a current web browser and a high-quality headset.

The audio connection can either be made via a physical audio line (AES67 / Dante / Ravenna / MADI etc.) or via the optional **Pretalk Streaming** connection.

The optional **Ember+/DHD SetLogic** upgrade (required per audio core), allows signalling and control via DHD SetLogic and/or Ember+.

Intercom application for MAGIC Server Professional

With the **Intercom Upgrade** and the associated **Intercom Web Client**, up to 32 lines can be displayed in one overview. The upgrade also provides special features such as a level booster in the direction of transmission, line identification via speech synthesis as well as signalling in case of line interruption. Up to six intercom groups can be set up per server.

The Intercom application also allows the use of the optional **Collaboration Services**, which can be assigned to one or more telephone channels. This makes it very easy to connect correspondents and reporters via WebRTC or MS Teams with much better quality.

The optional **Pretalk Streaming** allows a direct pre-talk with an intercom partner via the control PC and a connected headset - regardless of whether the channel is activated in the audio matrix or not.

As an alternative to the Web Client, a **PhonerSet** can also be used for operation. A maximum of 12 lines can be displayed here.

The optional **Ember+/DHD SetLogic** upgrade (required per audio core), allows signalling and control via DHD SetLogic and/or Ember+.

Licensing & Update Support

MAGIC Server's licence management is cloud-based, so an internet connection is mandatory. This enables prompt functionality upgrades, flexible floating and test licences.

The licence is always delivered as a lifetime licence and includes a 12-month update period.

For **MAGIC Server Basic**, a cost-effective annual support contract with update access can be optionally added after these 12 months. This ensures that the latest version can always be used and that all security updates are available promptly. In addition, the support contract includes remote support for four support tickets per year via our support portal.
Alternatively, we offer a **renewal licence** that can be purchased at any time and includes update authorisation for 12 months. In addition, one year of basic support is included for four support tickets via our support portal.

For **MAGIC Server Professional,** the conclusion of a support contract is mandatory after the first 12 months. The annual costs of the support contract are derived from on a baseline amount and the number of activated telephone hybrid channels at a defined date.
In addition to the update authorisation, the support contract includes remote support for 12 support tickets per year via our support portal.

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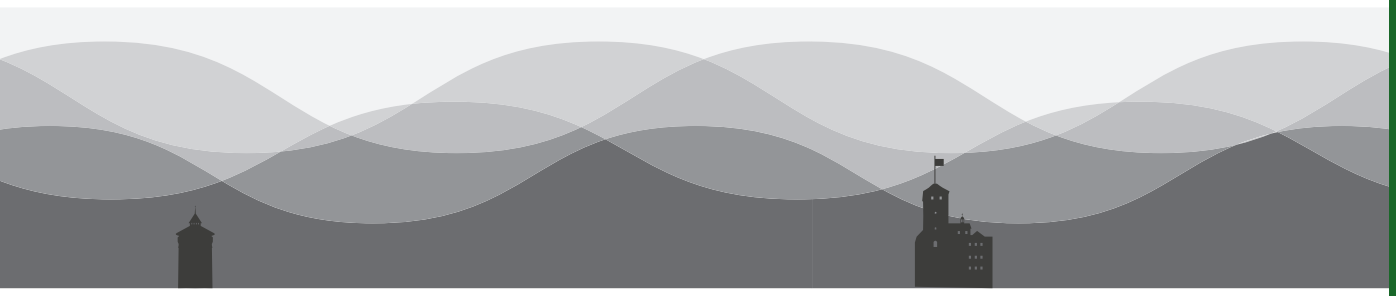

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