

# MVI AudioVisual B.V.

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# $Supported\ Conference\ systems\ and\ available\ features\ through\ EasyConf\_Base$

	Bosch DCN-NG	Bosch CCS1000	Bosch Dicentis Wireless	Bosch Dicentis wired	Shure MXC	Shure MXCW	Televic D-Cerno	Televic Cocon	Televic Confero 360	AudioTechnica ATUC-50	VISSONIC
Direct connection to the Central Controller	Χ	X	Χ		Χ	Χ	Χ		X	Χ	Χ
Connection to conference software-api				X				X	X		
Meeting and Agenda preparation including delegate database	X	X	X	X	X	X	X	X	X	X	X
Voting and voting preparation support	Χ		X**	X**		Χ		X	X	Χ	Χ
EasyConf Speech time support.	X	X	X	X	X	X	X	Χ	X	X	X
ID card support (free seating)	X		X	X		Χ		X	Χ	X	X
Fixed seating. Live Drag-drop delegate move and un-assign possibilities.	X	X	X	X	X	X	X	X	X	X	X
Suprema fingerprint possibilities.	Χ	Χ	X	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ
(synoptic) Microphone control	Χ	X	X	Χ	Χ	X	Χ	Χ	Χ	Χ	X
(synoptic) Request list control	Χ	Χ	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Per-delegate manage, speech and voting rights.	X	X*	X**	X**	X*	X	X	X	X	X	X
EasyConf Connect support	X	X***	X**	X**	X	X	X***	X	X	X	X
Report attendance results to PDF, Word, PowerPoint, Excel, and text files and/or directly to printer.	X	X	X	X	X	X	X	X	X	X	X

<sup>(\*)</sup> Limited individual delegate voting-right support when using dual-delegate mode (\*\*) Voting on dual delegate units, require voting license for both delegates (\*\*\*) Remote voting support, not in conference system



# About the MVI AudioVisual Software Suite and the licensing system

The MVI AudioVisual Software Suite contains the range of solutions that allows:

- full control of conference systems, including microphone control, request list management and (group) speech time management
- Its delegate database, meeting database and voting preparation.
- Hall presentation of voting results, speaker activity, agenda items and speech times
- When combined with EasyCam, full integration of conference systems and automated camera control, name and title overlaying, and hall display layered over the camera feeds.
- When combined with EasyConf Connect, full control over all microphones including remote microphones from people participating from a remote location including speech times.

#### EasyConf Conference system uniformity

Nearly all MVI Audio Visual products described below behave and look the same when used with most kinds of supported conference systems, because it is just one-and-the-same software suite that controls it all.

For either of these conference systems there is camera and name displaying, dome control, 2-speaker view, Excel meeting preparation, start and stopping of meetings/agenda items and voting sessions. Presenting on hall displays and paperless reporting

Once you know how to use EasyConf with one conference system, you will know how to control most conference systems.

#### Possible HYBRID conference system operation

When multiple EasyConf licenses are used, it is possible to prepare and control separate Bosch conference systems at the same time, as if it's one conference system. (With limitations, please ask us about the possibilities)

This environment allows meeting preparation and delegate-seat assignments to unique seat-names on both systems, a shared request list, shared speaker list and more!



# EasyConf\_Base

### This license adds the ability to control various types of conference systems using our custom designed user-interfaces.

It allows multiple user-interfaces running on different devices to control the system at the same time if needed. This can be the chairman behind an MMD device, an operator behind a PC or even an operator using an Android tablet.

A supplied template editor allows custom screens and user interfaces to be build, where the user can jump between controls for speakers, seats, timers, dome-cameras, meeting, agenda, and voting, ...

# Feature list:

- Individual and group speech time setup and control.
- Live Drag and drop seat assignment when people shift seats.
- Synoptic microphone control per seat.
- Optional use of photos of individuals or political parties for seats and different kind of lists (voting results, active speakers...).
- Speaker-list and request list, including touch control to disable a speaker or enable a request delegate.
- Selection, starting and stopping of prepared meetings, agenda items and voting sessions.
- The look-and-feel of the user-interface is fully customizable using the supplied template editor. The user/controller can switch to other templates where needed.
- Control camera prepositions from any control client including a live feed of the video (Requires EasyCam).
- Centralized delegate and meeting database
- Allows the import and export of meetings using simple Excel files.
- Delegates can be directly added to conference system seats, including speaker, voting and manage rights.
- Allows adhoc voting and agenda items.
- Allows the conference system(s) to be controlled by Windows clients, Bosch MMD device and Android tablets using fully customizable
  user interfaces.
- Allows Bosch DCN-NG chip-cards to be read and written. (Requires ACR32 reader, not included)
- Allows NFC cards for Bosch Dicentis Wired and wireless to be configured, for instance at a reception desk or operator position. Android tablet NFC is supported. (*Requires ACR122 reader, not included*)



# EasyConf\_Advanced

# Adds voting capabilities to EasyConf\_Base (and EasyConf Connect)

This license allows voting sessions to be performed inside the Dicentis Wired, Dicentis wireless and DCN-NG conference system. Voting sessions can be prepared before the meeting by the supplied software or by loading an Excel file with the meeting details including the voting sessions. On DCN Multimedia devices we run our own android-app to perform the voting sessions.

#### Features:

- Allows for Parliamentary "yes/no" and "yes/no/abstain" style voting. (Can be translated to any language)
- Multiple choice voting up to 5 answers for NG and 25 answers for DCN-MMD devices running our modern app.
- X out of Y voting which allows more than 1 answer on a given question (DCN-MMD only)
- Preparation of voting sessions in the program and by using prepared Excel files. When using Excel, multiple-choice answers can be
  defined per voting session.
- Voting control by the operator/chairman using the PC MVI-Client or an MMD device which is set as 'control'.
- Flexible layout of the User Interface of MMD delegates and MMD chairman using the supplied template editor.
- Optional unique background image on MMD devices based on the political party of the user.

#### Adds (PDF) reporting to EasyConf\_Base

This license adds voting reporting/printing capabilities and adds participant and speech time reporting features.

These reports will automatically be created as PDF, Word and PowerPoint files in a pre-defined folder, can be printed to a pre-defined printer and even emailed.

#### Features:

- Voting results reporting, including group voting results and individual voting results.
- Attendance reporting, including in and out times.
- Agenda items including voting results summary for that agenda item.
- Reporting in PDF, Word, PPT, Excel and plain text.
- Allows the automatic reporting of meetings and voting sessions. This way the end-user doesn't even need to use the software.
- Optional emailing and printing of automatically generated reports.
- Acts as a meeting and voting archive .
- Allows for a customer specific watermark in the reports to give it the look-and-feel of your end customer standard documentation.
- Custom reports can be made on request.

# Adds hall-presentation capabilities to EasyConf\_Base

#### Features:

- Allows meeting information like speakers, speech times, attendance, voting results, current agenda item and other data from the conference system to be presented on large hall displays.
- Enables custom hall display UI design, allowing templates to be designed specifically for the requirements of the end customer.
- Allows similar hall display templates to be used inside the EasyCam camera application as a layer over the camera feeds, even with (semi) transparent overlaying.
- Hall-display clients can be configured with automatic triggers based on meeting changes like start/stop voting, agenda, and meetings so the switching behaviour can be made automatic.
- Hall displays can also be manually switched to another template using the EasyConf control UI.

#### Adds Suprema fingerprint scanner support and advanced login for Delegate-UI devices

MVI supports the latest Suprema BioStar 2 compatible devices like the BioEntry W2. This allows fingerprint scanning, phone authentication and even face recognition to be used for identification and authorization to use a conference seat/device.

This feature adds advanced login capabilities on the MMD devices like delegate selection from lists and filtering methods.





### EasyConf\_DelUI\_seat

This license lets us take-over the User Interface of Bosch MMD devices and run it with our own custom generated user interface. A license-per-seat is required for each MMD device used in the system.

This allows a custom look-and-feel of the conference system, targeted towards the look-and-feel requirements of the customer.

This concept allows a simplified form of operation for the end-user on Bosch MMD devices, while still offering flexibility and custom actions, like

our own parliamentary and multi-voting offering.

#### Features:

- Customizable user interface for meeting delegates.
- Use your logos and your house-style into the conference system design.
- Custom voting screens and voting options.
- When combined with EasyConf Connect, shows correct voting results on MMD devices when remote votes are cast and mixed with the conference system.
- Custom welcome screen and login mode.
- Screen background can be unique per country or political party.
- Full-screen or windowed live-video and presentation feed. (Requires EasyCam Advanced)
- Let the user control their own UI or let the chairman device what screen the user looks at.



# EasyCam\_Base

EasyCam is a PC software-based software can directly control and display multiple cameras connected to a PC using HD-SDI video or H264/H265 live video to multiple connected displays.

The software acts as a seamless video switcher to select cameras, and as a video scaler and as a character generator. All inputs' resolutions and framerates may be unique and different from the output frequency. In addition, EasyCam can overlay the name of the current speaker on top of the camera footage using HD generated text and the logo of the political party. This results in a broadcast quality camera-and title display for the hall to see.

#### Features:

- Shows name, title, and logo of the current speaker on the PC screen output, based on microphone activity from the conference system. This functionality is available when EasyCam Base is installed together with EasyConf Base.
- Acts as a video switcher when using more than one camera HD-SDI input, up to 7 inputs and 1 extra for presentation input.
- Acts as a video scalar: Any camera can have its own resolution.
- Fully automatic or manual dome control.
- Support for a wide range of IP cameras such as Lumens, Avonic, Sony and many more
- Shows the full title and name of the speaker on screen.
- Split-screen mode, to show more than one speaker simultaneously.
- Multi-display output for clean-feed and a mosaic viewing
- Low-latency video-over-ip displaying, up to 8 inputs @ 1080p60.
- NDI input with a maximum of two connected devices (for a more efficient support and more sources, please add EasyCam NDI Advanced add-on to your order)
- 1920x1080 Full-NDI Output (1x). With EasyCam NDI advanced 4 outputs total.

# EasyCam NDI Advanced add-on

This license is an add-on for EasyCam and adds extended NDI support.

The NDI Advanced license is an extension for EasyCam that enables a much more efficient use of the NDI codecs. With this license you will be able to handle a lot more NDI inputs, using the GPU for processing of the video streams.

### Features:

- Up to 8 (EasyCam\_base) or 40 (plus EasyConf\_Advanced) NDI input sources available, depending on your GPU.
- 3 extra 1920x1080 Full-NDI outputs, making a total of 4



# EasyCam\_Advanced

This license expands the basic features of EasyCam\_Base and adds some unique features.

#### Features:

- 40 camera/input support (see requirements).
- 4K display support and full 4K camera support. Up to 8 cameras @ 4k60 or 16 cameras @ 4k30 mode using our video-over-ip solution.
- Multi-room layout.
- Per preposition colour control. Easy sit/stand setup and corresponding preposition.
- Professional Skaarhoj camera control, using our own custom created firmware which perfectly matches the behaviour of the camera and LED feedback with EasyCam.
- Key & fill as overlay output, to third party camera mixers.
- Support for up to 16 Blackmagic 1080p60 input sources added with 8 1080p60 h264/h265 IP sources. (From release 11.0)
- Semi-automatic camera control. All presets are available with a click of a button and can be (re)configured while the meeting is running.



#### EasyConf Connect

#### EasyConf Connect: our hybrid remote participation AV solution for your conference systems.

EasyConf Connect allows delegates to enter the meeting from a remote location as if they are part of the meeting room.

With EasyConf Connect, the remote participant is part of your AV and conference system as if the person is in the room. It doesn't matter for the flow of the meeting if the speaker is remotely present or present in the hall:

- If the person is in the hall, a conference system microphone is used. When its microphone is enabled, a dome camera will show the speaker and the conference unit is used to cast votes.
- If this person is participating from a remote location, the remote webcam and its microphone are used and EasyConf Connect is used to

For the chairman, the audience, the recording, live-stream, and the conference and voting system there is no difference: all will look and work the same if the person is either remotely present or participating in the hall. That is what we call **Easy!** 

# Features:

- Up to 150 remote delegates connected, even in a mosaic view while the meeting itself may contain 500 delegates
- Integrated hybrid voting solution in which votes from remote delegates are combined into the conference system. We combine and correctly display the voting results.
- Full chairman control over the room conference units, remote microphones, and request list
- Microphone, meeting and voting control works the same for remote and hall delegates.
- Individual and group speech time support, no matter where you sit.
- Interpretation channel support for remote participants, who can tune-in on their own selected channel.
- Mosaic view, multi video outputs. Mosaic view is nicely sorted by (political) group and alphabetically.
- Local hosting support. We supply the distribution server software so hosting can be managed by the end-customer or AV integrator to allow full control over your own data. Perfect for big institutions to keep your data in your own network.
- Integrated Acoustic Echo Suppression for the conference system and remote delegates.
- Customizable UI to allow for custom look-and-feel for remote users.
- User interface for delegates available in multiple languages



### EasyConf Connect MVI Hosting

This is a service offered by MVI AudioVisual to host an EasyConf Connect server to allow remote delegates to join the meeting in the room.

MVI AudioVisual takes care of:

- Hosting on a server in countries in Europe and Canada. Current supported countries are Germany, France, Finland, UK, Spain, Switzerland, Hungary and The Netherlands. On request, we can use a VPS hosting provider in your country (if available) to meet any government requirements which states that hosting must be performed from a server inside your country.
- Ávailability: 24 hours availability of the services 6 days in the week. Sundays are maintenance days to allow us to upgrade and maintain our network which may lead to temporary loss of service.
- X509 Certificate management and keeping certificates up to date. We secure our servers and remote connections to our servers with 2048bit X509 certificates and TLS 1.2 security.
- Support from 08:30 till 18:00 on weekdays Amsterdam time.
- Server maintenance and latest Windows updates are done by us on our weekly maintenance schedule on Sundays.
- Required bandwidth availability for maximum use of EasyConf Connect.

MVI hosting is priced per-connected-delegate-per-year. This means in a meeting with 100 persons and 20 MVI Hosting delegates, any of the 100 delegates may exists in the system with up to 20 out of 100 delegates at the same time.

### EasyConf Connect Self-hosting

EasyConf Connect self-hosting is an advanced concept where you or your end customer wants or needs to self-host our server.

This allows the customer to use our hosting server inside their own network. Or making it even part of a VPN network where delegates first need to enter the VPN network before they can even access the servers.

We need to emphasise that Self-hosting makes the hosting **your responsibility**. E.g., all the added benefit points of MVI Hosting becomes your responsibility to manage and requires advanced IT integration knowledge.

Self-hosting allows for 150 remote connections and is priced per-room-per-year and comes with an installation manual.

When using self-hosting, please reserve a few hours of MVI-support, required to assist you with your installation.



### System requirements

#### All Windows based application require Windows 10/11 Pro 64-bit or Windows Server 2022 desktop edition.

Our software can be shared with other software running on the same PC, if the total CPU and GPU consumption never exceeds 50%. Note: Windows server 2019 is also supported but this OS is end-of-life. Its strongly recommended to upgrade the system to server 2022.

#### EasyConf for Windows

- Minimal 8 Gbyte memory.
- Minimal Dual core 2Gz Intel (i-core or XEON) processor. (2 or more real CPU cores)

#### EasyConf\_DelegateUI for Windows

#### Between 1-50 DelegateUI MMD devices

- Minimal 8 Gbyte memory.
- Minimal Quad core Intel (i-core or XEON) processor. (4 real CPU cores)

#### Between 51-300 DelegateUI MMD devices

- Minimal 16 Gbyte memory.
- Minimal Octa core Intel (i-core or XEON) processor. (8 real CPU cores)

#### Between 301-600 DelegateUI MMD devices

- Minimal 16 Gbyte memory.
- Minimal 12- core Intel (i-core or XEON) processor. (12 real CPU cores)

### EasyConf Control Windows client

- Minimal 2 Gbyte memory.
- Minimal Dual-Core CPU
- Optional available USB connector for a card reader

#### EasyConf Control Android app requirements

- Android 9 or higher
- Minimal Quad core processor

#### The required .APK files can be found here:

www.mvi-audiovisual.com/android/landscape.apk or www.mvi-audiovisual.com/android/portrait.apk

#### EasyConf Control iOS app requirements

• Apple iOS 12 or newer

The landscape android app is recommended since all example UI templates are in landscape mode. There are many android device manufacturers, it will be impossible to guarantee support for all android devices. **We recommend testing your preferred android device first** before selling this to your end customer.

# EasyCam

- 16 Gbyte memory.
- Quad core Intel processor. (4 real processors). When combined with EasyConf\_DelegateUI and more than 50 screens, please add extra cores, see EasyConf\_DelegateUI system requirements.
  - When using BlackMagic design capture devices with multiple inputs (dual2/quad2), we recommend an Intel XEON CPU
  - Check https://www.blackmagicdesign.com/support/note/9568 for recommended hardware and workstations.
- Nvidia Quadro T1000, A1000 or better graphics card (for Full-HD) or Nvidia Quadro A4000 (for 4k) or better.
- Note: The T1000 and A2000 can be used up to 12 H265 camera inputs (or half amount of H264 camera inputs). The A5000 up to 40 Full-HD
  H265 inputs or 12 4K video-over-IP inputs (or half amount for H264 cameras). Note that the T1000 and A1000 model are limited to a mix
  of maximum 3 encode streams; The A2000 or better don't have this limitation and are recommended and are mandatory with combined
  with EasyConf Connect.
- Laptops equipped with GTX 1060, GTX 1660, RTX2060 or RTX3060 (or better) can be used for testing and demonstrations, they have the same 3 encode-streams (outbound) limitations.

### Note: Other/older Nvidia Quadro or RTX cards might work but are not recommended by us

### EasyCam + EasyConf Connect

- Specs same as EasyCam.
- Nvidia Quadro A2000 or better make this system EasyConf Connect certified and prepared for many future feature updates like room-coupling.



#### Self-hosting EasyConf Connect server up to 150 delegates.

- Windows 10 64-bit, Windows server 2019/2022. Can be a virtual machine or Virtual Private Server.
- Quad core (4 physical cores), minimal 2.5 Ghz. The cores must be dedicated to the virtual machine and not shared with other VMs.
- 4 Gbvte memory.
- High throughput internet connection, up and downlink, recommended minimum 100 Mbit up/down up to 20 remote delegates and 250Mbit up to 100.

**Important:** Please read our documentation on our resource pages for better understanding of what is needed for self-hosting EasyConf connect here: <a href="https://www.mvi-audiovisual.com/manuals-documentation/self-hosting-setup/">https://www.mvi-audiovisual.com/manuals-documentation/self-hosting-setup/</a>

#### EasyConf Connect client

- Windows 10/11: Home or professional
- MacOS 12 / iOS 15
- Dual core (2 physical cores), minimal 2 Ghz. Preferred intel Core i3 or better.
- 4 Gbvte memory
- (embedded) webcam and (embedded) microphone
   Recommended: USB or Bluetooth headset use for best meeting experience.

# Conference system license requirements

Below is a quick list of individual licenses you will need to purchase for your selected conference system brand. We cannot be held responsible for third party software of licensing needs to connect to our software, please contact your conference system contact for more details on their license requirements.

#### **Bosch**

Please ask your Bosch representative about Bosch licenses.

- MM / Dicentis wired, based on the new license structure introduced with Version 5.00 and MVI software version 10.8.2200:
  - Dicentis **Base**: Support for EasyCam\_Base standalone camera control
  - $\circ \qquad \text{Dicentis $\textbf{Premium}$:} \qquad \text{Added support for EasyConf\_Base, EasyConf\_Advanced including voting. No MVI speechtimes on}$ 
    - Dicentis units.
  - o Dicentis **Ultimate**: Added support for MVI speechtimes on Dicentis units
- NG
  - To be able to use the MVI software suites on the Bosch DCN-NG system, the Bosch Open Interface (LBB4187) license is required.
- <u>CCS1000</u>:
  - No Bosch licenses required
- <u>Dicentis wireless</u>:

When applicable: voting-per-seat, identification-per-seat and/or dual-seat per unit license. Ask you Bosch representative.

# Note: The old Bosch licensing system is still applicable and will work as designed

# Televic

Please ask your Televic representative about required Televic licenses.

- CoCon:
  - o Discussion license
  - Voting license
  - o Authentication license
  - o For Flex wired/Flex wireless: When applicable: voting-per-seat, identification-per-seat and/or dual-seat per unit license.
- Confero:
  - o Confero 360 license
  - $\circ \qquad \text{For Flex wired/Flex wireless: When applicable: voting-per-seat, identification-per-seat and/or dual-seat per unit license.} \\$

#### Shure

No additional licenses are needed for the supported MXCW system.

#### AudioTechnica

No software licenses required; our solutions take full control.

#### VISSONIC

No software licenses required; our solutions take full control.