DICENTIS

Conference System

BOSCH

en Software Manual

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1 Safety

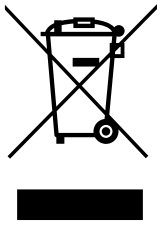
Prior to installing or operating products, always read the Important Safety Instructions which are available as a separate multilingual document: Important Safety Instructions (Safety_ML). These instructions are supplied together with all equipment that can be connected to the mains supply.

Safety precautions

Some of the DICENTIS Conference System products are designed to be connected to the public mains network.

To avoid any risk of electric shock, all interventions must be carried out with disconnected mains supply.

Interventions with the equipment switched on are authorized only when it is impossible to switch the equipment off. The operation must only be performed by qualified personnel.



Old electrical and electronic appliances

Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive).

To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

2 About this manual

The manual provides information on how to configure the DICENTIS Conference System, prepare meetings, and manage prepared meetings in the Meeting application. This manual does not describe the hardware installation and user operating instructions. If required, refer to the DICENTIS Hardware Installation manual and DICENTIS User Operation manual.

This manual is available as a digital document in the Adobe Portable Document Format (PDF). Refer to the product related information on: www.boschsecurity.com.

2.1 Intended audience

This manual is intended for technicians, system integrators and people who have the authorizations to prepare and/or to manage prepared meetings of a DICENTIS Conference System. Before using this manual you should have completed a training course for the DICENTIS Conference System.

2.2 How to use this manual

Refer to the following chapters during installation and maintenance of your system:

- **Chapter 1**: *Safety, page 6* - contains essential safety information, which you should read before installing or operating your system.
- **Chapter 2**: *About this manual, page 7* - this section; gives information on the intended audience and explains how to use this manual.
- **Chapter 3**: *System Overview, page 13* - provides a high-level description of the DICENTIS Conference System. A brief description of the system hardware and software is included, as well as an overview of the software licenses/modules.
- **Chapter 4**: *Software installation, page 24* - describes how to initially configure the system by installing the DICENTIS software suite and downloading software to the DICENTIS devices.
- **Chapter 5**: *Software server, page 27* - explains the Server software, including the Activation Tool, which is required for activating the system and adding additional software modules, as required.
- **Chapter 6**: *Meeting application, page 32* - describes all menu items of the DICENTIS system software. This section assumes that your DICENTIS system has all of the available licenses.
  Note: If the required software licenses are not installed some of the menu items described in this manual may not be present on your system.
  When navigating the menu items in the system software, use the small triangle in the left window pane to fully expand all options in the navigation tree. These options are sequentially described in the sub-sections of this chapter.
- **Chapter 7**: *Post-meeting tools, page 70* – gives information on the automatically generated XML meeting notes and voting notes files that can be used for making the minutes of the meeting. An explanation for modifying the XSLT style sheet, which allows information to be displayed in the local language, is also included.
- **Chapter 8**: *System extension, page 74* - explains the requirements for extending your system, that is, how an ARNI (Audio Routed Network Interface) can be used to add additional multimedia devices to the system.
- **Chapter 9**: *Configuring an external HD-SDI switcher, page 76* - explains how a video switcher can be added to the DICENTIS Conference System for dynamically switching HD-SDI video signals. This enables video signals from a camera to be displayed with low latency on a hall-display.
- **Chapter 10**: *Synoptic Microphone Control, page 79* - explains how to configure and manage Synoptic microphone control. This enables a chairperson or clerk to have more control over a meeting by granting or stopping speech via a visual layout of the speakers' room. He/she can also switch between microphone control and displaying voting results in a synoptic layout.
- **Chapter 11**: *System Activation Website, page 82* - gives information on the Bosch System Activation Site, which amongst other is used to: activate DICENTIS licenses; view received licenses; and create and maintain users and (sub)dealers.
- **Chapter 12**: *Hints and Tips, page 85* - provides useful information for upgrading, maintaining and using your system. An overview of the hints and tips is included at the beginning of this chapter.
- **Chapter 13**: *Troubleshooting, page 96* - explains where to find Troubleshooting information, and provides a list of known issues and their solutions.

2.3 Copyright and disclaimer

2.4 Document history

Release date	Documentation version	Reason
2013.08	V1.0	1st edition.
2014.02	V1.1	Sections updated: 2.3, 3.1, 3.3, 4.1, 6.3.4.
2014.07	V1.2	Sections updated: 1, 2, 2.1, 2.3, 3.1, 3.4, 4.2, 5.1, 6.2, 6.2.2, 6.2.3, 6.3, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.9, 6.4.1 and 6.4.3. New sections: 7, 8.
2014.10	V1.3	Sections shifted: old 8 > new 9 and old 9 > new 10. Sections updated: 2.3, 3.1, 5.1, 6, 6.1, 6.2.4, 6.4.3, 7, 9.1. New sections: 4.3, 5.3, 8, 9.4 up to 9.10.
2015.01	V1.4	New sections: 2.3, 6.2.3, 6.4.5. Sections updated: 2.2, 3, 3.4, 5.1, 5.2, 5.3, 6, 6.2, 6.2.1, 6.2.2, 6.2.4, 6.2.5, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.6, 6.3.7, 6.3.11, 6.4, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6,4,5, 6.4.7, 6.4.8, 8, 9, 10.
2015.04	V1.5	New sections: 3.4.1, 3.5, 9.12, 9.13, 9.14, 9.15, 9.16, 10.2 with sub-sections 10.2.1 through 10.2.5. Sections updated: 3.2, 3.4, 4.1, 5.3, 6, 6.2.3, 6.3.4, 6.3.7, 6.3.10, 6.3.11, 6.4.3, 9.4.

Release date	Documentation version	Reason
2016.01	V1.6	New sections: 7, 10, 11.11. Sections shifted: old 7 through 8 > new 8 through 9, old 9 > new 11. New sections added to 5 and 9. Sections in 11 rearranged. Sections updated: 2.2, 2.4, 3.1, 3.3, 3.4, 3.4.1, 3.5, 4.1, 4.2, 4.3, 5.1.1, 5.3, 6.2.1, 6.2.3, 6.2.4, 6.3, 6.3.1, 6.3.2, 6.3.4, 6.3.5, 6.3.7, 6.3.11, 6.4.3, 6.4.6, 6.4.7, 6.4.8 (graphic added), 12.2.3.
2016.07	V1.7	New section: 6.4.9. Sections updated: 6.3.2, 6.4.2, 6.4.3, 6.4.7, 6.4.8, and 8. General: – All sections, product name changed from 'DCN multimedia' to 'DICENTIS.' – Dual Use at Seat functionality added. – Functionality information added for the various device types.
2016.11	V1.8	New sections: 3.5, 12.14. Sections updated: 2.2, 3.1, 3.2, 3.6, 6, 6.2.6, 6.3.2, 6.4.1, 6.4.7, 10.1, 12.3, 13.2.5. General: – Authentication via Windows Server added. – Uniform discussion settings. – Display participant image of active speaker. – Easy arranging of Synoptic icons. – Option to switch between Microphone control and Voting results.

Release date	Documentation version	Reason
2017.01	V1.9	Sections updated: 3, 3.4.1, 3.6, 4.1, 4.2, 5.4, 6, 6.1, 6.3.1, 6.3.2, 6.4.1, 6.4.4, 6.4.5, 6.4.6, 12.6, 13.2. General: – Dante Floor input and output added. – Several audio options added. – Speech timer functionality added. – Panasonic SDI/IP cameras are supported via Panasonic CGI commands. – Sony SDI/IP cameras are supported via Sony CGI commands.
2017.04	V.2.3	Sections updated: 3.1, 5.4, 6.2.6, 6.3.2, 6.3.11, 6.4.8 General: – Option to show or hide waiting queue for participants added. – Navigation buttons are blocked on the DCNM-MMD and DCNM-MMD2 during a voting round. – Different 100% settings can be defined to facilitate interpretation of the voting results.

3 System Overview

The DICENTIS Conference System is an IP based conference system which runs on an OMNEO compatible Ethernet network. It is used for distributing and processing audio, video and data signals.
Refer to the latest “Release notes” for important information.
It is advisable to participate in the DICENTIS Conference System training before you install, configure, prepare, and operate a DICENTIS Conference System.

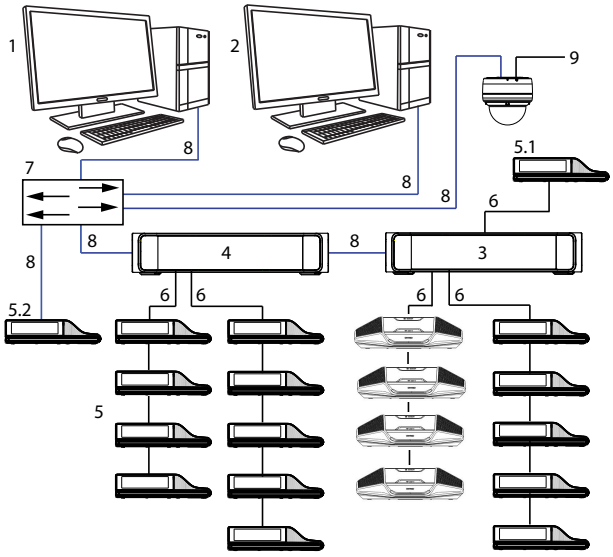


Figure 3.1: Typical DICENTIS Conference System setup

A typical DICENTIS Conference System consists of:

1. System server controller (PC):
   - The heart of the system. It licenses functionality, configures and controls the system.
2. Client PC:
   - Can be used to: Manage meetings, prepare meetings and configure the system.
3. Audio Powering Switch (DCNM-APS / DCNM-APS2):
   - Controls the system audio, routes audio from and to the system and supplies power to the DICENTIS devices.
4. Powering Switch (DCNM-PS / DCNM-PS2):
   - Is used to increase the number of DICENTIS devices connected to the system.
5. DICENTIS devices): DCNM-D, DCNM-DVT, DCNM-DSL, DCNM-DE / DCNM-MMD, DCNM-MMD2:
   - Participants can use their DICENTIS device to contribute to a meeting.
   - **5.1** is a DICENTIS multimedia device used for “system power on/off”. This device is always connected to the powered socket of the Audio Powering Switch or Powering Switch.
     Note: Only one DICENTIS Multimedia device should be connected here.
   - **5.2** is a DICENTIS device used via a “Power over Ethernet” (PoE) Ethernet switch.
     Note: Only one DICENTIS device should be connected here.
6. System Network Cable (DCNM-CBxxx):
   - Connects DICENTIS devices, the Audio Powering Switch, and one or more Powering Switches to each other.
7. Ethernet switch:

– Ethernet switch with PoE on some ports.
  - Routes the system data via Ethernet.
  - Provides power to the DICENTIS devices via PoE.

8. CAT-5e Ethernet cable (minimum requirement).
9. Optional video camera (Bosch Onvif Profile-S, Sony IP cameras via CGI commands, or Panasonic HD Integrated IP) + external power supply:
   – Captures the image of a speaking participant.

   Note: The Sony camera needs to be placed in a separate VLAN to avoid problems with the multicast data.

   Note: The Panasonic camera requires an external H.264 encoder if the SDI video needs to be displayed on the multimedia devices (or in the Meeting Application).

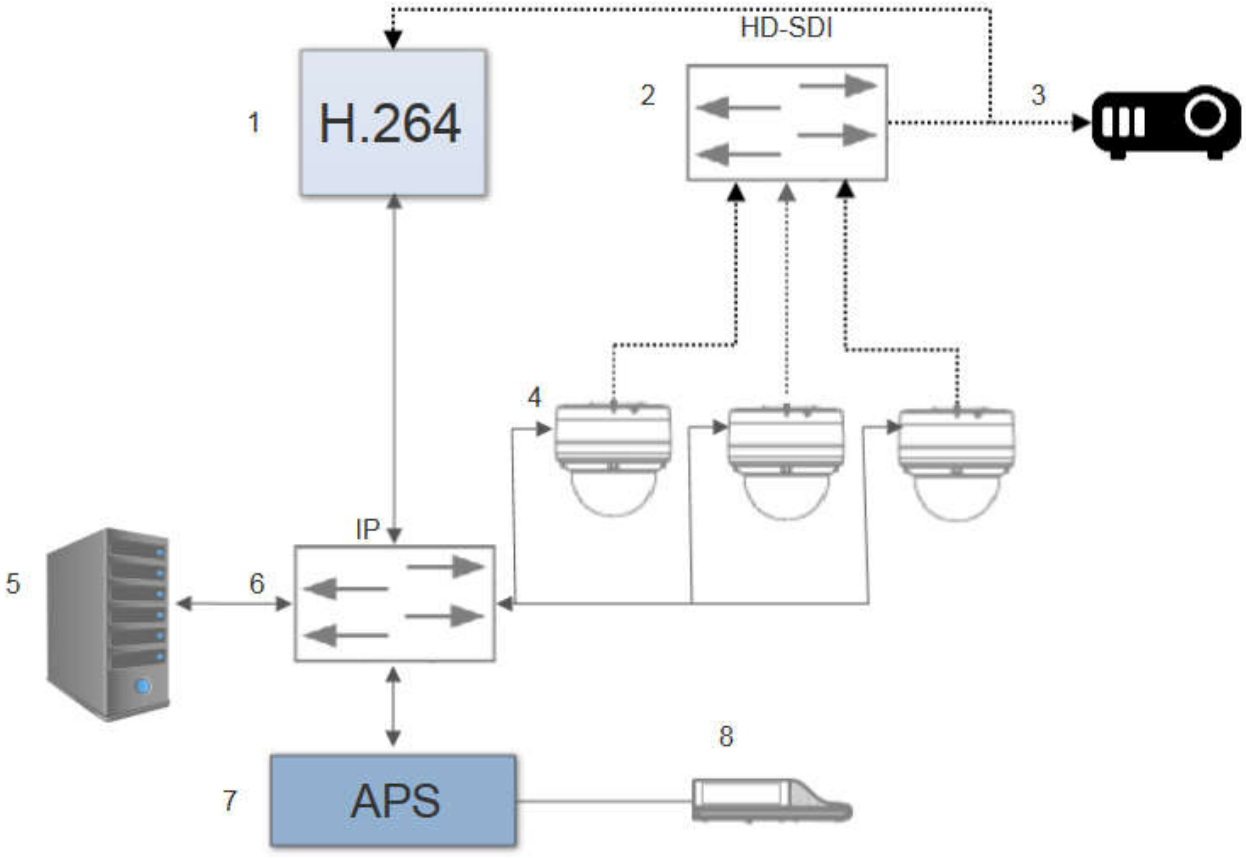


Figure 3.2: Typical camera setup

A typical camera setup in a DICENTIS Conference System consists of:

1. H.264 encoder to encode the HD SDI video to H.264
2. HD-SDI switcher
3. Projector
4. Video camera (Bosch Onvif, Sony, Panasonic)
5. System server controller (PC)
6. L3 Ethernet switch
7. Audio Powering Switch (DCNM-APS / DCNM-APS2)
8. DCNM-MMD

Cables:

- Dotted line = HD-SDI (coax cable)
- Black with arrow = Ethernet TCP/IP
- Black straight line = DCNM-cable

DICENTIS software suite

The DICENTIS Conference System software is used:

– To control and monitor a DICENTIS Conference System.
– To control a meeting, which is held in a room.

Each meeting consists of an agenda with several topics, and each topic has a discussion.
The DICENTIS software suite consists of two major parts:

1. The DICENTIS **software server.**
2. The **Meeting application**.

DICENTIS software server

The DICENTIS software server is a set of windows services. These services do not have a user interface and are run in the background to control and monitor all of the DICENTIS devices and client PCs running the Meeting application. The software server also includes a license activation module. This module is required for activating the license of the DICENTIS Conference System, as well as adding and returning fulfillments (a fulfillment consists of one or more licenses) See *Adding and removing licenses, page 27*.

DICENTIS Meeting application

The DICENTIS Meeting application acts as a PC user interface for configuring the system and preparing and managing meetings.

The PC running the services acts as a server for controlling the system and requires no user interaction in an operational DICENTIS Conference System. Basic functions for managing a meeting are available in the multimedia device. Optionally, the Meeting application can be installed on the server PC to control and monitor the meeting. If required, the Meeting application can be installed on a client PC instead. This means that the server PC can be installed in a 19" rack instead, which is normally located in a technical room. It is possible to have multi PCs running the Meeting application simultaneously.
The system audio is controlled by the DICENTIS Audio Powering Switch (DCNM-APS or DCNM-APS2). This means that the system will not have audio when an Audio Powering Switch is not present.

3.1 Hardware requirements

This section lists the minimal requirements for each part of the system. For an overview of which parts are required or optional, see the DICENTIS manual System Overview sections.

PC

A PC can be used for three purposes:

1. PC running the server software in a multi-PC system.
2. Client PC (running the Meeting Application only).
3. Single PC used for both above purposes.

For each use there are minimal requirements as listed in the following table.

Single PC system running server software and meeting application:	– Windows server 2008 R2 64 bits, or:
	– Windows server 2012 R2 64 bits (including .NET Framework 3.5 feature):
	  – Processor i7 4 cores 2.5 GHZ.
	  – 16 GByte RAM.
	  – 20 GB free disk space.
	  – 1 GB Ethernet card.

PC running the server software in a multi-PC system:	– Windows server 2008 R2 64 bits, or:
	– Windows server 2012 R2 64 bits (including .NET Framework 3.5 feature):
	  – Processor i7 4 cores, 2.5 GHZ.
	  – 16 GByte RAM.
	  – 20 GB free disk space.
	  – 1 GB Ethernet card.

PC running the meeting application only:	– Windows 7 home premium 64 bits, or
	– Windows 8.1 Pro/Windows 10 Pro 64 bits (including .NET Framework 3.5 feature):
	  – Processor i5 4 cores, 2.4 GHZ.
	  – 8 GByte RAM.
	  – 20 GB free disk space.
	  – 1 GB Ethernet card.
	Note: Windows 10 is only suitable for use with the client PC.

Switches

The following minimal requirements apply to switches:

– 1 Gbit or higher with hardware switching capabilities.
– Quality of Service through differentiated services with 4 or more output queues and strict priority packet scheduling.
– (Optional) IGMPv3 or IGMPv2 snooping. To optimize bandwidth usage, IGMP snooping can be used. This is useful in systems with >10 multicast streams, although not absolutely required. Sufficient performance for handling a large number of IGMP query responses, depending on the number of (directly or indirectly) connected devices to that switch. Hardware support for IGMP is strongly recommended.
– VLAN separation is recommended instead of IGMP, because most switches are unable to handle the multicast changes in the system. Filtering multicast data may be necessary for some devices, such as 100 Mb devices (Sony cameras, TVOne, AMX, and others).

– (Rapid) Spanning tree needs to be DISABLED for optimal operation. When enabled, it can cause slow connections to the switch. In case of a redundant network where you would require RSTP, configure the switch to use the “portfast” mode.
– (Optional) SNMPv3 support for switch supervision purposes.

Routers

The following minimal requirements apply to routers:

– 1 Gbit or higher Ethernet ports.
– Supports PIM-DM or Bidirectional PIM.
– Performs IP routing in hardware (i.e. a ‘layer 3 switch’) to minimize the routing delay.
– Packet forwarding rate > 1,000,000 packets per second per port (e.g. 8 Mpps for an 8-port router).
– Non-blocking backplane per switching port, i.e. 2 Gbit per port (e.g. 16 Gbps for an 8-port router).
– MAC address table of at least 1000 addresses per directly connected subnet.

3.2 Network requirements

If the DICENTIS Conference System is being used as a standalone system, it uses the so-called dynamic link-local addresses. This means that the TCP/IPv4 setting of the server PC and client PCs need to be set to "Obtain an IP address automatically". Normally, these settings are default and therefore do not require PC network configuration settings.

In case more functionally is required, for example, internet access, the dynamic link-local addresses cannot be used. In this case the DICENTIS devices and PCs need to be connected to a DHCP server and gateway to provide internet access. If the DICENTIS Conference System will become part of a locally present network, contact your local IT department for how to set up the network.

The DHCP server has to comply with RFC 4676 and must be able to handle 500 requests per 30 seconds. A consumer grade DHCP server as is used in most home router/wireless access points is not able to comply with this requirement and will cause unexpected and unrequested behavior.
The DHCP server functionality of Windows 2008 server and Windows 2012 server does comply with these requirements.
The DICENTIS Conference System service uses ports 13 and 9710 for communication. Please make sure that these ports are not used by any other applications on the DICENTIS server computer.

Notice!
How to set up an Ethernet network is outside the scope of this manual.

3.3 Software requirements

For the server PC, DICENTIS requires:
- Windows 2008 Server R2, or
- Windows 2012 Server R2 (including .NET Framework 3.5 feature).

All versions must have the latest service packs and updates installed.

3.4 License requirements

Before the DICENTIS Conference System can be used, you have to:
1. Install the DICENTIS System Server Software (DCNM-LSYS) license on the server PC. See *Installing the DICENTIS software suite, page 24*.
2. Activate the DICENTIS software.

Additional licenses can then be purchased to add functionality to the system. See *License overview, page 20*.

3.4.1 License overview

The DICENTIS system has the following types of license:

– System license (activates one or more features in the system).
– Seat license (activates one or more features in a DICENTIS device).
– Service license (keeps the DICENTIS software up-to-date).

This section describes the main features of these licenses. For detailed information (including ordering information), refer to the DICENTIS datasheets on www.boschsecurity.com.

System licenses:

DCNM-LSYS DICENTIS System Server Software

DICENTIS System Software, software platform for controlling the DICENTIS system. Additional software modules can be added to extend functionality. The system is configured with the Meeting Application.

– Automatic device discovery
– Controls up to 750 DICENTIS devices for participants
– Client server solution
– No user interaction needed to run the system
– Dante ™ inputs and outputs for floor audio

Note: This license is always required and must be installed first to activate the system.

DCNM-LCC DICENTIS System Camera Control

DICENTIS Camera Control enables the use of Bosch Onvif compliant cameras in the DICENTIS Conference System and DICENTIS Wireless System. DCNM systems require system license DCNM LSYS.

– Automatically shows current speaker on display of multimedia devices
– Interface for Bosch Onvif compliant IP (including Panasonic and Sony cameras)
– Automatically discovers Bosch Onvif cameras
– Controls HD-SDI video switchers

DCNM-LMS DICENTIS Media Sharing

DICENTIS Media Sharing enables the display of a remote presentation computer to be shared on all DICENTIS Multimedia devices. Requires system license DCNM-LSYS.

– Media sharing from remote presentation computer
– Shared screen is auto scaled

DCNM-LMPM DICENTIS Meeting Prep & Management

The DICENTIS Meeting Preparation and Management software module enables the prepare and manage meetings functions in the Meeting Application. Requires system license DCNM-LSYS.

– Enables meeting and agenda preparation and management
– Creates structured meetings with agenda topics
– Links multimedia content to meetings and/or agenda topics
– Meetings can be easily managed
– Discussion settings can be defined

DCNM-LPD DICENTIS Participant Database
DICENTIS Participant Database gives the ability to define participant's names and assign participants to seats. Requires system licenses DCNM-LSYS and DCNM-LMPM.
– Comprehensive database information for all participants
– Reuse of participant information across meetings
– Defines discussion, manages meeting and priority authorization for each individual participant
– Option to add pictures to participants

DCNM-LVPM DICENTIS Voting Preparation and Management
Enables the preparation and management of voting rounds. Requires system licenses DCNM-LSYS, DCNM-LMPM, and DCNM-LPD. An individual seat license (DCNM-LSVT) is required for each DICENTIS Discussion device with touchscreen and/or Multimedia device, the Meeting Application, and the API client.
– Voting rounds can be prepared beforehand and conveniently selected during a meeting
– Individual voting authorization can be defined for participants
– Secure storage and easy-access of voting data for post-voting or post-meeting analysis
– Total and interim voting result options for public voting and secret ballot
– Easy third-party access of data via system APIs

Seat licenses:
DCNM-LSVT DICENTIS Voting at Seat
DICENTIS software license for enabling voting at seat in the DICENTIS Multimedia, DICENTIS Discussion device with touchscreen, and DICENTIS wireless Extended. The DICENTIS Discussion device with voting has the functionality built-in.
– User friendly voting procedure
– Voting choice and results can be automatically displayed on the DICENTIS Multimedia and DICENTIS Discussion devices with touchscreen
– Voting results can be displayed in a synoptic layout
– Reuse of voting licenses for new seats if old seats are deleted
– Intuitive colored voting buttons for ease of use

DCNM-LSID DICENTIS Identification at Seat
DICENTIS software license for enabling identification at seat in the DICENTIS Discussion device with voting, DICENTIS Discussion device with language selector, DICENTIS Discussion device with touchscreen, DICENTIS Multimedia device, and DICENTIS wireless Extended.
– Enables use of a unique username (and password) for logging in to a DICENTIS Multimedia device
– NFC tag can be used to log in a DICENTIS wireless Device Extended, DICENTIS Discussion device with voting, DICENTIS Discussion device with language selector, DICENTIS Discussion device with touchscreen or a DCNM-MMD2 device
– Possibility to use fixed or free seating
– DICENTIS wireless Device Extended and DICENTIS Discussion devices with touchscreen can display a welcome screen with personal participant information
– Participants are recognized during login; number of present and absent participants can be displayed on DICENTIS wireless Device Extended and DICENTIS Discussion devices with touchscreen

DCNM-LSSL DICENTIS Select Language at Seat

The DICENTIS Select Language at Seat license enables the language selection feature of the DICENTIS Multimedia and DICENTIS Discussion device with touchscreen. The DICENTIS Discussion device with language selector has the functionality built-in. Requires system license DCNM-LSYS.

- Intuitive interface for switching between floor language and other available languages
- Name of selected language is clearly displayed using original name and characters
- Interpreted speech can be listened to via headphone output of DICENTIS Multimedia device, DICENTIS Discussion device with touchscreen or DICENTIS Discussion device with language selector

DCNM-LSDU DICENTIS Dual Use at Seat

DICENTIS software license for enabling dual-use at seat in the DICENTIS Discussion device, DICENTIS Discussion device with language selector, DICENTIS Discussion device with touchscreen, and DICENTIS wireless devices.

- Facilitates dual-use functionality in a DICENTIS wireless Device and a DICENTIS Conference device
- Enables the participant’s name to be correctly displayed when the DICENTIS devices are used by two participants

Service license:

DCNM-SMA DICENTIS Software Maintenance Agreement

Software Maintenance Agreements (SMAs) are available for one, two, or five year(s). Includes the licensed system and seat software upgrades, as well as third-party compatible updates.

- Enables best-possible system performance
- Convenient upgrade of software instead of expensive hardware
- Regular updates

3.5 Security measures

The installer takes care of security measures to prevent improper use of the system via the Internet and local wired or wireless networks.
Consider the following items to increase security:

- Change the default admin password
- Prevent unauthorized access to the DICENTIS server computer
- Prevent unauthorized physical and logical access to the wired Ethernet connection of the DICENTIS network
- Place the DICENTIS network in a separate VLAN
- Use a firewall

3.6 GUI languages

The DICENTIS Conference System has the following GUI languages:

	ar	ca	de	en	es	fr	fi	id	it	ja	ko	nl	pl	pt	pt-BR	ru	th	tr	vi	zh-CN	zh-TW
Multimedia device	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Discussion device with touchscreen	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Meeting application	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Server Console	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Activation tool	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
APK upload tool				•																	
Activation website			•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	

4 Software installation

Before the DICENTIS Conference System can be used, it needs to be configured.
Configuration of the system is done in the following order:

- **Network installation:**
  - This is not part of one of our Bosch Security Systems B.V. manuals, and needs to be defined together with your local IT department. Refer to *Hardware requirements, page 17* and *Network requirements, page 19*.
- **Installation of hardware devices:**
  - This is not part of this manual. Refer to the DICENTIS Hardware Installation manual. Refer to the product related information on www.boschsecurity.com.
- **Installation of software:** *Installing the DICENTIS software suite, page 24*.
- **Activate the system and application software by registering the software:** *Adding and removing licenses, page 27*.
- **Update device (firmware) software:** *Downloading software to the devices, page 25*.
- **Configuration of system and application software:** *Meeting application, page 32*.

4.1 Installing the DICENTIS software suite

Configure network interface

Notice!
Before installing the DICENTIS software, make sure the server PC only has one enabled network interface (Bluetooth is also seen as a network interface).

Download and install latest version of DICENTIS System Server Software from the Internet

1. Go to: https://licensing.boschsecurity.com/software
2. Click the **Software** link (small square) to download the latest version of the software. You can also download the latest version of the Release Notes here.
3. Follow the on-screen instructions.

Notice!
After installing/upgrading the System Server Software, maker sure you download the latest version of the software to the devices, as described in *Downloading software to the devices, page 25*.

4.2 Downloading software to the devices

– Factory delivered DICENTIS devices are delivered with diagnostics software and must be upgraded to the latest software version before they can be used.
– All DICENTIS devices must be upgraded after upgrading the System Server Software.

To do this:

1. Make sure all devices are correctly connected to the network and fully started.
2. Right-click the DICENTIS **Server Console** in the Windows taskbar.
3. Click **Upgrade devices**. This will stop the DICENTIS services and start the upgrade process.

Use this procedure to upgrade other hardware components, such as the DCNM APS, as required.

Notice!
It is not advisable to upgrade the devices at the same time as the DCNM-APS, because the DCNM-APS resets itself during the download process. This will remove power from the devices, which will cause a firmware upgrade of the devices to fail.

Notice!
Upgrading the devices will stop all current meeting activities, as well as the DICENTIS services. After upgrading the devices, you will have to restart the services by right-clicking the DICENTIS Server Console in the Windows taskbar and then clicking “Restart services”.

Notice!
In a DICENTIS system with an ARNI, a restart of the services via the Server Console may take up to 3 minutes. If you want to restart the services, please use the stop services function in the Server Console, wait for 30 seconds and then use the start services function in the Server Console.

4.3 Adding third-party application to a device

The APK (Android application package) upload tool is used to add a third-party Android application to a multimedia device. Before you can add a third-party Android application, you must verify if the application is compatible with the multimedia device.

Caution!
All installed third-party applications (APKs) will be deleted when firmware is uploaded to a multimedia device.

Notice!
The APK upload tool can not run at the same time as the OMNEO Firmware Upgrade Tool.

Add a third-party Android application to a multimedia device as follows:

1. Place the APK files on the server PC.
2. Click the **Browse** button.
3. Browse to the location of the APKs.
4. Select the multimedia device which needs the APK.
5. Select the APK.
6. Click **Upload**.

Notice!
If the new APK is not shown on the home screen of the multimedia device, try to click the home button several times, or reboot the multimedia device.

5 Software server

5.1 Adding and removing licenses

The activation tool is used to:
- add fulfillments to the DICENTIS system.
- return fulfillments that are no longer required.

A fulfillment consists of one or more licenses that can be installed on the DICENTIS system.

Before the system can be used, the DICENTIS System Software has to be installed, which enables basic functionality in the system. Additional software modules can then be installed to extend system functionality, providing that the system has a valid Software Maintenance Agreement (SMA).

Notice!
The DICENTIS System Software includes an SMA that is valid for one year from the date of activating the DICENTIS System Software.

5.1.1 Activation tool description

- **Fulfillments** window: Shows the fulfillments activated on the system. When more than one fulfillment is activated, an **All Fulfillments** line is displayed at the top of the **Fulfillments** window. Selecting a fulfillment line displays the related licenses in the **List of licenses and quantity** pane. The fulfillment lines have the following color codes:
  - Black: the fulfillment is okay.
  - Orange: the fulfillment is not trusted and should be repaired.
  - Gray and strike-through: the fulfillment is returned and is awaiting the response to be removed.
  - Gray and strike-through: The fulfillment has expired (time limited). Return the license to clean up your system.
- **List of licenses and quantity** window: For each license, this window shows: Qty (number of licenses), Order number, Description, Activated (activation date of license) and Expires (expiry date of license).
- **Software Maintenance Agreement** window: Shows the Software Maintenance Agreement (SMA) end date. When the SMA end date has expired, it turns red and the additional red text **System is not operational! Additional SMA is required** is displayed at the bottom of the window.
- **Add fulfillment**: Use this button to add a fulfillment. A fulfillment can consist of one or more licenses that add additional functionality to the system.
- **Process response message**: Click this button to:
  - upload the response file that you received from the Activation site.
  - finalize the return or repair process.

    Note: You must click this button to finalize these processes.
- **Return fulfillments button**: Use this button to return fulfillments/licenses, as required. Do this when the functionality is no longer required for a system, for example, when you want to install the software on another server.

5.1.2 Initial activation of the system

Activate the system for initial use as follows:

1. Make sure you have:
   - an activation ID (this was sent by email after purchasing the software license).
   - Technician rights.
   - a PC connected to the internet.
   - a USB stick.

Notice!

To perform the following steps, your user account must have “Technician rights”. The ‘Admin user’ of your organization can grant these rights.

2. At the server PC:
   - Start the DICENTIS activation tool by right-clicking the DICENTIS **Server Console** in the Windows taskbar and then clicking **Activate licenses**.
   - Click the **Add fulfillment** button.
   - Enter all required information including the activation ID. The activation ID is on the **Overview** page of the **System Activation Website** (see *Overview, page 83*) and is included in the email you received after purchasing the software license.
   - Click **Activate**. A **save as** dialog box is shown.
   - Save the **Request file** to the USB stick.
3. At the website https://licensing.boschsecurity.com:
   - Select the **Manage license** tab page.
   - Use the USB stick to process the **Request file** on this page.
   - After processing the **Request file**, save the **Response file** to the USB stick.
4. At the server PC:
   - Select the DICENTIS activation tool.
   - Insert the USB stick.
   - Click **Process response message**.
   - Upload the **Response file**.
   - Restart the services by right-clicking the DICENTIS **Server Console** in the Windows taskbar and then clicking **Restart services**. Now the system is activated.

5.1.3 Adding additional fulfillments/licenses

If you want to add additional fulfillments/licenses to the system, the system must have a valid SMA. This ensures for correct functioning of the latest DICENTIS features.

Caution!

Upgrading the DICENTIS system without having a valid SMA can cause the system to stop functioning.

Add additional fulfillments/licenses as follows:

1. Open the Activation tool, and check the activation date of the system. If the system was activated less than a year ago, you can safely proceed with the installation.
2. If the **SMA end date** is displayed at the bottom of the window in red text, you need to extend your SMA.
3. Software versions 1.3 and lower: if the **SMA end date** field is not displayed at the bottom of the window, and the system was activated more than a year ago, you should calculate if the SMA end date is still valid as follows:

- add 1 year to the activation date.
- add 1 year to the activation date for each DCNM-1SMA which is in the list of licenses.
- add 2 years to the activation date for each DCNM-2SMA which is in the list of licenses.
- add 5 years to the activation date for each DCNM-5SMA which is in the list of licenses.

4. If the outcome is after today's date, you can safely proceed with the installation.
5. If the outcome is before today's date, you need to extend your SMA, because the DICENTIS software will not start up after the upgrade.
6. To add the fulfillment, click the Add fulfillment button and repeat the steps of the 'Initial Activation' procedure.
7. If after adding the fulfillment, the **SMA end date** is displayed in red at the bottom of the window, you need to extend your SMA.

5.1.4 Returning and repairing a license

Returning a license

Use the **Returning a license** function of the Activation tool to either:

- return a license.
- release a license, so that you have the possibility to install the DICENTIS software on another server instead.

To return a license:

1. Select the fulfillments you want to return.
2. Select the **Return fulfillments** button, and then follow the instructions on screen.
3. Make sure you finalize the process by pressing the **Process response message** button.

The procedure on the website is similar to activating a license. See *Adding and removing licenses, page 27*.

Repairing a license

If a license becomes defect, the software will not work correctly. The server console will announce the defect with an on-screen warning message. The activation tool will then enable the **Repair license** button.

To repair a license: click the **Repair license** button, and then follow the instructions on screen.

The procedure on the website is similar to activating a license. See *Adding and removing licenses, page 27*.

5.2 Backing up a license file

After installing the licenses on the system, the license files should be backed-up. This will prevent license(s) being lost if the hard-drive containing the licenses crashes or is formatted. The directory should be saved in a safe location, preferably on another hard-drive.

To do this:

1. Stop all services of 'Bosch DICENTIS', including the **Bosch** DICENTIS **License Manager** and **FlexNet Licensing Server 64'** services. Always do this before performing a backup and/or restore.
2. To make a backup of trusted storage, copy **C:\ProgramData\FlexNet** to a backup location.
3. To make a restore, copy these files to the PC that originally stored them.

Notice!

The folder and files are normally hidden in Windows. Change the setting of Windows Explorer to make them visible, by selecting: Organize > Folder and search options > View.

5.3 Server console

In Windows Server 2008 and 2012, a console application is provided for showing the status of the DICENTIS server.
The DICENTIS server console icon is displayed in the notification area of the DICENTIS server PC, i.e. on the right side of the taskbar next to the time.

DICENTIS Server console status
Right-click the DICENTIS **Server console** to:
- **Start/Stop services**.
- **Start the activation tool**.

An icon showing the status of the DICENTIS server is displayed:

Status	Description
	Running
	Stopped
	Warning. For example, this icon is displayed when a license is not activated.

How to permanently display the server console icon
By default, the server console icon is only displayed on event. To permanently display this icon:
1. Select the **Notification Area Icons** window:
   - **Windows Server 2008**:
     Click the arrow on the left side of the notification area, and then click **Customize**.
     Or,
     Click the **Start** button and search for the word **notification** in the Start Menu search box. Then click **Notification Area Icons**.
   - **Windows Server 2012**
     Go to the Start screen and type notification. Filter the results by **Settings**, and then click **Notification Area Icons**.
2. Use the slider bar to scroll down to DICENTIS **server console**.
3. Select **Show icon and notifications.**
4. Click **OK.** The Server console icon will now be permanently displayed.

5.4 Rapid Spanning Tree Protocol (RSTP) support

The DICENTIS system supports redundant cabling when the Rapid Spanning Tree Protocol (RSTP) is enabled. By default RSTP is disabled to prevent network failures in a system where RSTP is not supported or allowed.

To enable cable redundancy:

1. Power up the system without cable redundancy.
2. Enable Rapid Spanning Tree Protocol (RSTP) in the DICENTIS server:
   - In Windows explorer, select: **C:\Programs Files\Bosch\DICENTIS**.
   - Open: **Bosch.Dcnm.Services.DeviceService.Main.exe.config**.
     If you have Administrator rights, this file can be opened in notepad; otherwise, copy the file to a local area on your PC.
   - To enable RSTP, set the **OcaRstpModeEnabled** key from **false** to **true**.
     <!-- Indicates whether rstp should be enabled or disabled on all OCA devices -->
     <add key="OcaRstpModeEnabled" value="false"/>
3. Restart the DICENTIS server.
   Restart the APS, PS and Discussion devices (MMD, Dxx).
4. Wait until the system is fully started. The devices can then be cabled redundantly (loops can be closed).

When upgrading a DICENTIS system:

1. Please disconnect the cable loops before upgrading the system.

Notice!

In the upgrade process, the file where the RSTP settings are stored is overwritten by a file that contains the data for the new version:

Bosch.Dcnm.Services.DeviceService.Main.exe.config

This means that the RSTP functionality is disabled, so extra steps are required.

2. After upgrading:
   - Create the setting in **Bosch.Dcnm.Services.DeviceService.Main.exe.config**
   - Restart the DICENTIS server PC.
   - Restart the (Audio) Powering Switches.
   - Restart PoE switches if PoE switches are used to power the participant devices.

6 Meeting application

The meeting application consists of four main parts (only available with the applicable license):

1. *Manage, page 37*: To manage a meeting.
2. *Synoptic Microphone Control, page 79*: To configure and manage synoptic microphone control.
3. *Prepare, page 42*: To prepare a meeting.
4. *Configure, page 54*: To configure the DICENTIS system.

Starting the Meeting application

1. From the **Windows Start menu**, select: **All Programs** > **Bosch > DICENTIS** > **Meeting application**. A Login dialog is displayed.
2. To log in to the application, enter a **User name** and **Password**.
   The preferred application **language** can also be selected.

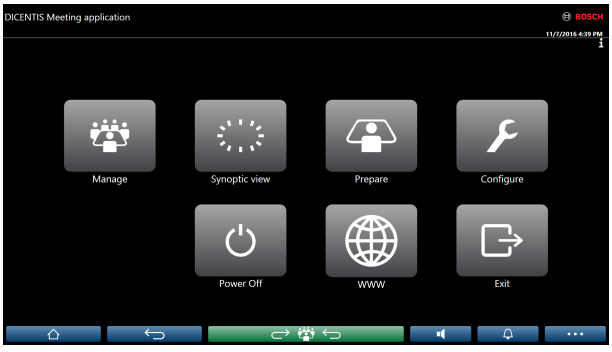


Figure 6.1: Meeting application main screen (showing all icons)

Automatic login to Meeting application

By default, the DICENTIS Meeting application will automatically log in when the windows login user name is the same as a user name in the DICENTIS system. In this case, the authorization rights of this user will be used for the DICENTIS Meeting application.

Notice!

The default **User name** is “**admin**” and the **password** is empty. The default **language** is the language of the operating system; if the default language is not available, English is automatically selected.

Disable/enable automatic login to Meeting application

The automatic login feature can be disabled and enabled as follows:

1. In Windows explorer, select: **C:\Programs (x86)\Bosch\DICENTIS**.
2. Open: **Bosch.Dcnm.UserInterfaces.MeetingManager.exe.config.**
   - To disable automatic login, set the key from **true** to **false.**
     <add key="ENABLE_AUTOMATIC_WINDOWS_AUTHENTICATION_TO_LOGIN" value="false"/>
   - To enable automatic login, set the key from **false** to **true**.
     <add key="ENABLE_AUTOMATIC_WINDOWS_AUTHENTICATION_TO_LOGIN" value="true"/>

Authentication via Windows Server

It is possible to synchronize the user and password data between the corporate network and the DICENTIS Conference System. Users who are part of the organization are often already registered in the Microsoft system with their username and password. When this option is enabled, users can log in to the discussion device with the same user name and password they use for Windows authentication. The user name and password will be validated on their computers on the corporate network.

The authentication service is normally part of the corporate network. The IT department wants the DICENTIS system to be isolated from the corporate network because they do not want the multicast traffic (the audio) to influence the corporate network. The DICENTIS system should have access to the corporate network without being part of the corporate network. This can be solved as follows:

- Create a separate subnet on a different VLAN, for the DICENTIS system in the network.
- Create routing between the DICENTIS and corporate subnets.

Note: Do not use a second NIC for the DICENTIS server to create a solution with the DICENTIS server as step-stone between the DICENTIS system and corporate network.

- Test if everything is working by accessing a share on a file server, using a computer which belongs to the corporate domain. See schematic below.

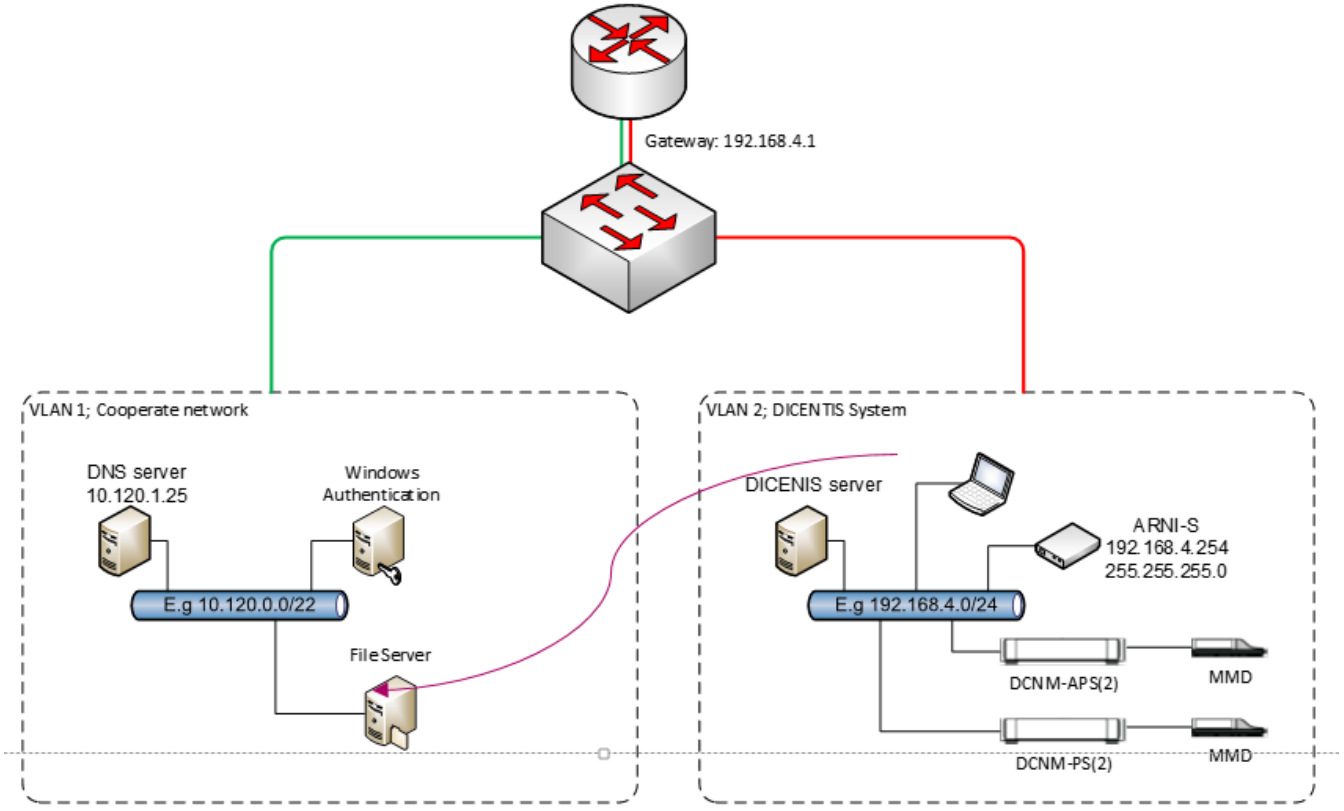


Figure 6.2: System diagram

For a DICENTIS Conference System with more than 100 devices an ARNI is required. To configure a system with ARNI:

- Define a proper gateway address in the ARNI, so that routing to the corporate network will work.
- Use the ARNI as the DHCP server for the DICENTIS subnet.
- Configure the DNS Parent address; this is the address of the DNS server in the corporate network.

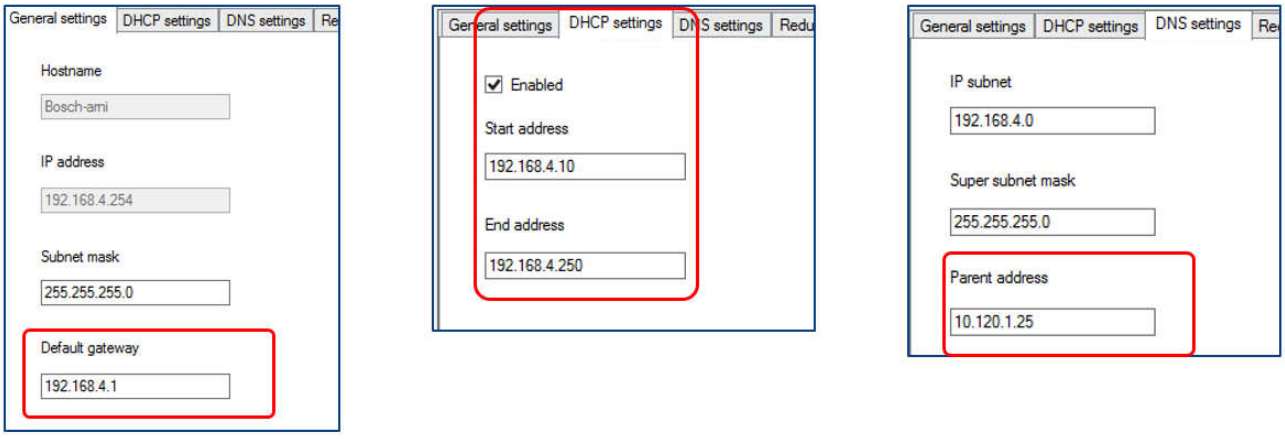


Figure 6.3: Configuration for a system with ARNI

To enable authentication via the Windows Server:

1. Make sure all persons using the multimedia devices in the central system which uses Windows authentication server are registered (including first name, last name, user name and password). The username must be identical to the username assigned to these users in the Windows authentication system.
2. Configure the user group “Participant group” to use Windows Server authentication:
   - Open **Configure** in the Meeting Application.
   - Go to **User groups**.
   - Select **Participant group**.
   - Tick **Windows Authentication**.

See also *User groups, page 54*.

Note: Windows authentication is applied per user group. User groups from outside the organization (like Service technicians) are usually not registered in the customer’s authentication system. For these groups do not enable **Windows Authentication**. This means their password has to be stored in the Meeting Application.

6.1 User rights and meeting rights

To use functions, certain rights are needed. DICENTIS provides two types of rights:

1. **User rights**
   - User rights are defined in *User groups, page 54*.
2. **Meeting rights**
   - Meeting rights are defined **per seat** and **per participant** in a meeting.
   - Refer to Seat assignment.
   - Refer to *Participants, page 49*.

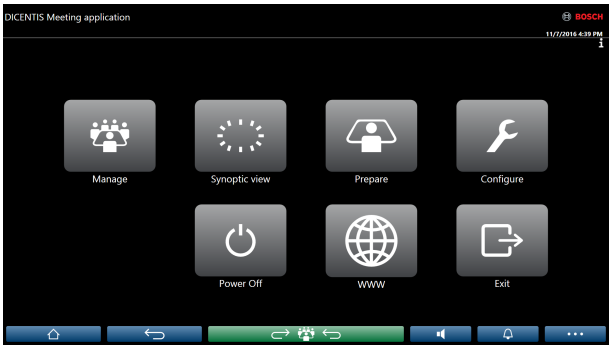


Figure 6.4: Meeting application main screen (showing all icons)

(Touch) button	Description	User rights	Meeting rights
Manage	To manage meetings.		Manage meeting.
Synoptic view	To configure and manage the speakers' microphones via a visual layout.	Configure system (to be able to configure the layout).	Manage meeting (to be able).
Prepare	To prepare meetings.	Prepare meeting and agenda.	
Configure	Configure the system.	Configure system.	
Power	Sets the system to standby or wakes-up the system.		Device right: Power off.
WWW	Opens a web browser.		
Exit	Exits the application.		
Home 	Returns to the home screen of the meeting application.		
Back 	Goes one page back from the navigation history.		
Back to active 	Brings you to the active part of the meeting.		
Volume 	Opens the master volume control slider.		Device right: volume control.

(Touch) button	Description	User rights	Meeting rights
Summon 	Activates a chime to summon the participants.		Manage meeting.
Menu (...) 	Opens a menu for additional functionality.		Manage meeting.

Notice!
The “Power On” button on the Meeting application, or on a DICENTIS multimedia device connected to the low power socket of the Audio Powering Switch, only wakes up DICENTIS devices that are powered by an Audio Powering Switch or Powering Switch device. DICENTIS devices that are powered via a PoE switch, must be powered on with the “Power on” button of the DICENTIS MMD instead. These devices will also power up when the PoE port disables and enables PoE functionality.

Notice!
DICENTIS Discussion devices that are powered via a PoE switch will always be powered on. These can only be powered on and off by disabling the PoE on the Ethernet port of the PoE switch.

See also
- *Manage, page 37*
- *Prepare, page 42*
- *Configure, page 54*

6.2 Manage

Manage is used to manage a meeting. Click the **Manage** button on the main screen to open the manage screen. Initially the manage screen shows a list of all prepared meetings.
When there are no prepared meetings, the list is empty. This means that the default meeting is active and a default discussion is open. To access this default discussion, click the green **back to active** button. Refer to *Discussion, page 40*.

Manage meeting means:
- **Activate** and **Deactivate** a meeting. Refer to *Meeting, page 37*.
- **Open** and **Close** a meeting. Refer to *Meeting, page 37*.
- **Manage** the meeting agenda. Refer to *Agenda, page 38*.
- **Manage** voting. Refer to *Voting, page 38*.
- **Manage** the discussion. Refer to *Discussion, page 40*.
- **Manage** the menu. Refer to *Menu, page 41*.

Preconditions
- The PC from which the meeting application is run, must have meeting rights: **Manage meeting**.
- A meeting has to be prepared before it can be managed. For information on how to prepare a meeting, refer to *Prepare, page 42*.

6.2.1 Meeting

Click the **Manage** button on the main screen to display a list of all prepared meetings. The icon to the left of the meeting number and name shows the status of the meeting:
- **Gray**: The meeting is deactivated.
- **Green**: The meeting is activated.
- **Red**: The meeting is open.

Activate a meeting
- To activate a meeting, press the **Activate** button for the meeting that needs to be activated.
- To show the meeting content without activating or deactivating the meeting, click anywhere in the meeting row.

When the meeting is activated:
- the meeting details screen is opened.
  - On the left, the agenda and the assigned participants are shown.
  - On the right, the meeting details and the agenda are shown.
  - The name of the activated meeting is shown in the header of the meeting application.
- all prepared data of the meeting is sent throughout the system. The data contains names and meeting rights of the participants and the assigned seats.
- a meeting notes file is created. During a meeting, data is saved to this file as applicable. The file is closed once the meeting is deactivated. For more information, refer to *Post-meeting tools, page 70*.

If the **Auto Open** function is enabled, the meeting is automatically opened.

When the **Activate** button is not shown:
- the seat to which the PC is assigned to, does not have "**manage meeting**" rights or,

– the user name used to logon to the meeting application is not assigned to the meeting and/or, does not have the "**manage meeting**" rights.

Open the meeting

Click the **Open** to start the meeting. If the **Auto Start** option is enabled, the first agenda topic is automatically opened.

Close the meeting

To close the meeting, select the meeting on the left, and then click **Close** on the right. The meeting is closed and the meeting list is shown where the meeting can be deactivated.

6.2.2 Agenda

Only a prepared agenda can be managed.

Manage an agenda

1. Make sure the meeting is activated and open.
2. Click **Meeting** in the left-pane.
3. Select the required topic from the left or right pane.
   – The open agenda is shown in the header of the meeting application.
   – The prepared discussion settings and prepared speaker list are sent throughout the system and are activated.
4. To continue with the next agenda topic, just open the next agenda topic in the agenda view.

6.2.3 Participants

– To display a list of participants, click **Participants** in the left-pane: A list of participants is displayed in the right-pane.
– To also view participants in the left pane, click the small triangle next to **Participants**.
– If the participants have images assigned to them, the image is displayed next to their name,
– If the meeting has identification, the following information is displayed at the top of the right-pane:
  – Number of **participants registered**.
  – Number of **participants present**. The presence of a participant is shown by a blue bar; their absence by a grey bar.
  – **Log off all participants** button: Logs off all participants in a meeting. Participants will have to log on again before they can take part in a meeting.

6.2.4 Voting

– If you want to hold a prepared voting round:
  – The licenses DCNM-LVPM and DCNM-LSVT must be enabled in the system. For more information on these licenses, see *License overview, page 20*.
  – The voting round should be prepared beforehand by using the **Prepare** button on the main screen. For more information, see *Voting script, page 51* and *Voting round details, page 51*.
– A simplified ad-hoc voting round can be held during a prepared meeting by entering the details of the voting round during the meeting.

Manage a voting round

1. In the Meeting application, click the **Manage** icon.
2. Make sure the meeting is activated and open.

3. Click the voting icon (tick mark) in the menu button (**...**) at the bottom right-hand corner of the screen to display:
   - A list of prepared voting rounds (shown on both panes).
   - Total number of **participants authorized to vote** and the number of **participants present** (shown at top of right-pane).
   - The ad-hoc voting fields (the black/grey area at the bottom of the right-pane).
     Note: After clicking on another item in the left pane, you can click on **Votings** to redisplay the list of all voting rounds in the right-pane.
4. Either:
   - Hold an ad-hoc voting round by completing the fields **Number**, **Subject**, and **Description**, and then clicking on the **Ready to vote** button, or
   - Open a prepared voting round, by clicking the **Ready to vote** button of a voting round.
5. The voting screen is displayed:
   - The subject of the voting round is displayed at the top of the screen.
   - **Previous** button: Selects the previous voting round.
     This button is hidden when:
     - The first voting round in the list is selected.
     - Ad-hoc voting is used.
   - **Next** button: Selects the next voting round.
     This button is hidden when:
     - The first voting round in the list is selected.
     - Ad-hoc voting is used.
   - **Recall** button: Recalls the selected voting round. For example, use this button if you selected the incorrect voting round by mistake.
   - **Open button:** Opens the selected voting round.
   - **Close** button: Closes the voting round.
   - **Hold** button: Puts the current voting round on hold. The participants voting buttons are temporarily disabled and votes cannot be changed or cast.
   - **Accept** button: To confirm that the motion is accepted.
   - **Reject** button: To confirm that the motion is rejected. The voting round can be held at another time.
   - **Abort** button: Aborts the current voting round once voting is opened. Voting results are not saved.

Voting results

Depending on the installed licenses and system settings, a voting results file is created on the DICENTIS server when a voting round is opened. During a voting round, data is saved to this file as applicable. The voting results file is closed when the voting round is closed. For more information, refer to:

- *Voting round details, page 51* (which explains the voting round settings).
- *Post-meeting tools, page 70* (which gives information on the voting results and meeting results files).

6.2.5 Discussion

To manage the discussion, click the **back to active** button.
The list on the left shows the discussion list. This list contains **speaking** and **waiting** participants. The following color-coded icons are used:

- **Red** icon: The participant is speaking.
- **Grey** icon: The participant's microphone is muted.
- **Green** icon: The participant is waiting to speak.

Use the shift button, at the bottom of the discussion list, to shift participants from **waiting** to **speaking**. If the speaker list is full, the longest speaking participant is removed from the speaker list.

Context menu

The discussion list has a context menu to manage the discussion. Right-click the discussion list to show the context menu. The context menu has the following options:

- When an **item** is not selected (i.e. not clicked on):
  - **Cancel all**: Stops all speakers and removes all requests.
  - **Cancel all request**: Removes all requests.
  - **Add**: Opens a menu to add a participant to the list, either as a speaker or a waiting participant. Right-click the required participant to add the participant and select **grant the floor** or **add to waiting list**. Depending on the **number of open microphones** and **microphone mode** setting, a participant added to the waiting list might be immediately moved to the speaker list.
- When a **speaking participant** is selected (clicked on), the following option is available:
  - **Stop speaking**: Stops the selected participant from speaking. Depending on the **number of open microphones** and **microphone mode** setting, the first waiting participant might be immediately shifted to the speaker list.
- When a **waiting participant** is selected (clicked on), the following options are available:
  - **Shift**: Shifts the selected participant from waiting to speaking.
  - **Remove**: Removes the selected waiting participant from the list.

6.2.6 Menu

For more managing options, click the menu button (**...**) at the bottom right-hand corner of the screen. A pop-up menu with icons will appear. If the menu button (**...**) is not shown, the **Manage meeting** rights checkbox is not selected in the Seats and Devices screen. For more information, see *Seats and Devices, page 63*.

The pop-up menu has the following options:

- **Presentation**: Click the presentation icon, and then click on “on” to enable the presentation mode. Click on “off” to disable the presentation mode.
  - The system license must contain DCNM-LMS.
- **Discussion settings**: Click the discussion settings icon, to “open” the discussion setting of the current activated discussion. Changed settings will not be stored in the prepared discussion settings of the agenda. The following can be set:
  - Discussion mode
  - Speakers list
  - Priority options
  - Speech timer
  - Camera control options (system license must contain DCNM-LCC)
  - Multimedia device and Meeting Application options
- **Pan and tilt camera control (PTZ)**: Click the pan and tilt camera control icon, and then click on **Show** to show the Pan and tilt camera control. Click on **Hide** to hide the camera control.
  - The icon is only visible in the discussion screen.
  - The system license must contain DCNM-LCC.
- **Voting**: Click the voting icon to go to the voting screens. The system will either use “basic” voting or “prepared” voting depending on the installed licenses and system settings.
- **Basic voting requirements**:
  - DCNM-LSVT voting license is activated.
  - Voting function has been assigned to licensed seats in the Meeting application. For more information, see *Seats and Devices, page 63*.

    Note: Basic voting screens do not have a subject and description displayed on the multimedia device; the voting results are not stored.
- **Prepared voting requirements**:
  - All requirements of basic voting are met.
  - DCNM-LVPM voting license is activated.
  - One or more voting rounds have been prepared in the meeting application. For more information, see *Voting script, page 51*.
  - A meeting is activated and open.

    Note: Prepared voting screens have a subject and description displayed on the multimedia or discussion extended device; the voting results are stored.

6.3 Prepare

The meeting administrator should use a PC to prepare a meeting. To prepare a meeting, click **Prepare**. This opens the **Prepare** screen.

Prepare meeting means:
- **Administrate Persons**.
- **Add meetings**.
  - Add **Persons** to the meeting.
  - Add **Agenda** topics.
  - Add **Meeting details**.
  - Add a **Voting script** and one or more **Voting rounds.**
- **Discussion profiles** to define the discussion settings.

Preconditions
- The logged on user must have the user right: **Prepare meeting and agenda**.

6.3.1 Persons

To add people/names to the system, click **Persons** in the tree (left pane). Requires system license DCNM-LPD. **Persons** can be assigned to a meeting, as described in *Participants, page 49*.
The edit icons and a list of persons is displayed in the middle pane. Use the **edit icons** to add or remove persons from the list.
For each person, **General** and **Security** fields can be entered in the right pane:
- **General** fields are:
  - **First name**
  - **Middle name**
  - **Last name**
  - **Title**
  - **Region**
  - **Country**
  - **Group**
  - **Image**
- **Security** fields are:
  - **User name**
  - **User-group**: Drop down list for selecting: ParticipantGroup, Operator, Secretary, Admin
  - **NFC id**: The number of the Near Field Communication (NFC) tag of the participant. See following sub-heading: “**Configure system for use with NFC tags**”.
  - **Password**: Button for changing the password of a user.

The security fields are used for enabling logon in the **Meeting application** and the multimedia devices.

Configure system for use with NFC tags

Notice!
NFC tags can only be used with DCNM-MMD2 , DCNM-DE , DCNM-DSL , and DCNM-DVT devices.

If NFC tags are used to identify/authenticate participants, the secretary or clerk should create a unique NFC ID for each participant. To do this:

1. In the **Persons** (middle) pane, click on the name that you want to assign the NFC tag to.
2. In the right-pane, click in the **NFC Id** field to select it.
3. Identify the NFC Id to the system:
   - Make sure a suitable NFC-USB card reader is connected to the USB port of the Client (secretary's) PC. Bosch Security Systems B.V. recommends using one of the following Smart Card Readers: HID Omnikey 5022 CL, HID Omnikey 5421, Identiv SCM PC-Card uTrust 470x F, or Sony USB NFC Reader RC-S380/S.
   - Scan the NFC tag at the USB card reader. The NFC Id will appear in the **NFC Id** field.
   - If you do not have a USB card reader, you can type the NFC Id in the **NFC Id** field instead.
   - If the same NFC card/ID is used for more than one participant, a red border is shown around the **NFC Id field**, indicating that there is a validation error.

6.3.2 Discussion profiles

Discussion profiles are used to define the discussion settings. Click **Discussion profiles** in the tree. These profiles are used during the preparation of the agenda topics.
Use the **edit icons** to add or remove discussion profiles.
The following can be set:

- **Profile Name**: The name of the profile.

Discussion settings

- **Discussion Mode**:
  - **Open (automatic)**: When selected, queues in the waiting list are automatically shifted to the speaker list if it is not full yet. If the speakers list is full, a microphone request is queued in the waiting list.
  - **Open (manual):** When selected, participants can issue a request to speak and enter the queue. A user using the Meeting Application or a participant with “manage meeting” rights using an MMD or the Synoptic application can grant the participant the floor.
  - **First in first out**: When selected, participants can control their own microphone. If the speakers list is full, a microphone request overrides the longest speaking participant.
  - **Voice activated:** When selected:
    - the microphone buttons on the discussion devices are colored red.
    - the microphone is activated when a participant speaks.
    - participants do not need to press the microphone button to get the floor.
    - the microphone button can be held in to temporarily mute the microphone.
    - the discussion list is cleared and is not updated while voice mode is active.
    - the chairperson can still use the priority button to override all participants.
    - camera control is not available.

    This mode can be used for systems with up to 50 devices. It can be configured in the profile and agendas during a discussion.
    If a microphone has VIP rights (refer to *Participants, page 49*), it will not be automatically activated when the participant speaks. Instead a participant with VIP rights has to press the microphone button to speak, which will mute all other participant microphones.
- **Speakers list:**
  - **Max active microphones**: The maximum number of active microphones in the speakers list can be pre-selected (max. 25).
  - **Allow speaker to switch mic off**: When selected, participants are allowed to switch off their microphone. Disabled when **Open (automatic)** is on or **First in first out** is on.
  - **Switch mic off after 30 sec of silence**: This function can be used when participants forget to switch-off the microphone manually.
  - **Ambient microphone**: When selected, the ambient microphone connected to input 1 is enabled.
  - **Speakers queue size**: The maximum number of requests in the waiting list. A maximum of 200 requests can be selected. This is disabled when **First in first out** is on.
  - **Allow request to speak**: When selected, request-to-speak is allowed. This is disabled when **Open (automatic)** is on.
  - **Allow cancel request to speak**: When selected, participants are allowed to cancel their request-to-speak. This is disabled when **Open (automatic)** is on.

- **Show waiting in queue by green mic LED**: When selected, the LED in the microphone will be on for devices in the waiting list (instead of off when not selected).
- **Show first in queue by blinking green LED**: When selected the microphone button and the microphone LED will blink green for the first person in the queue. Can only be used when **Show waiting in queue by green mic LED** is also selected.
- **Show queue for participants:** When enabled, the queue will be displayed on all seats. When disabled, it will only be displayed on seats which have Manage meeting rights. This allows you to show the queue to the chairperson and operator, but hide it for all other participants. This functionality is also available for the synoptic layout so that the queue is shown to the chairperson and operator, but hidden for participants.

- **Priority options:**
  - **Priority tone**: When selected, a priority tone is audible when priority is used. Set to off by default. The priority tone can be configured per agenda item or during the discussion, but can only be used if a priority tone was defined.
  - **Mute all speakers**: When selected, it mutes all speakers temporarily when priority is used. Disabled when **Open (automatic)** is chosen.
  - **Switch off microphones and clear queue**: When selected, all speakers and persons in the waiting list are cancelled when the priority is used.
- **Speech timer:**
  - **Speech time per speaking turn**: When selected, the speech timer can be set per speaking turn in minutes and seconds. Each time a speaker is allowed to speak, this time is awarded.
  - **Show last minute by red blinking mic button**: When selected, the microphone button on the active speaker's device will start blinking when the last minute of speech time has been reached.
  - **Show last minute by red blinking mic LED**: When selected, the microphone LED on the active speaker's device will start blinking when the last minute of speech time has been reached.
  - **Adjust speech time**: When selected, the speech time can be increased or decreased with the number of minutes and seconds entered by clicking the + / - icons at the top of the Discussion profiles screen.
  - **Turn microphone off when time has elapsed**: When selected, the microphone is switched off after the set speech time has elapsed. When not selected, the microphone will stay open after the set speech time has elapsed.
- **Camera control options** (only available with DCNM-LCC license):
  - **Camera control**: When selected, activates external or SDI video switchers, as required; directs the cameras towards the required pre-configured positions; displays the camera image on the multimedia devices.
  - **Camera override**: When selected, the last participant that activated their microphone is shown.
- **Multimedia device and meeting application options:**
  The available options depend on the installed licenses and the settings in the Discussion profile.
  With DCNM-LPD license only:
  - **Display image of speaker**: When selected, the image of the first speaker during the meeting, as stored in the Participant details, is shown along with his/her participant details

- **Display image of newest speaker**: When selected, the image of the latest speaker during the meeting is shown.
- **Display logo**: When selected, the customer logo, or if no logo has been configured, a blank background is displayed in the Meeting Application and on the multimedia devices.

With DCNM-LCC license only:

- **Camera control options** are available.
- **Display video on device**: When selected, and **Camera control** is selected, the active speaker or overview camera will be displayed in the camera view in the Meeting Application and on the multimedia devices.
- **Display logo**: If **Camera control** is not selected, the customer logo or a blank background is displayed in the Meeting Application and on the multimedia devices.

With DCNM-LCC and DCNM-LPD licenses:

If both **Camera control** and **Camera override** are selected in the **Camera control options:**

- **Display video on device**: When selected, and **Camera control** is selected, the active speaker or overview camera will be displayed in the camera view in the Meeting Application and on the multimedia devices.
- **Display image of speaker**: When selected, the server controls the video switcher and the cameras. The latest speaker is displayed in the Meeting Application and on the multimedia devices.
- **Display image of newest speaker**: When selected, the image of the latest speaker is shown in the Meeting Application and on the multimedia devices.

If **Camera control** is not selected in the **Camera control options:**

- **Camera override** becomes disabled and **Display logo** is activated. The company logo is shown in the Meeting Application and on the multimedia devices.

Notice!

If a profile is changed, the agenda items that use this profile are not automatically updated. Therefore, after updating a profile you will have to reapply this profile to all agenda items that require the new settings.

6.3.3 Meetings

To prepare a meeting:

- Use the **edit icons** to add or remove a meeting.
- When a new meeting is added, the **Meeting details** can be entered.
- Use the **copy icon** to copy a meeting, including all meeting details.

See also

- *Meeting details, page 47*
- *Participants, page 49*
- *Agenda, page 49*

6.3.4 Meeting details

Click meetings in the tree to display the list of meetings.

- **Name**: Type the name of the meeting.
- **Description**: Enter a suitable description.
- **Start Date/Time**: Select the required start date and time of the meeting.
- **End Date/Time**: Select the required end date and time of the meeting.
- **URL**: Enter a suitable URL, as described in *Uploading and accessing files (documents, pictures, and presentations), page 93*. Enables documents stored on the **DcnmMeetingDocuments** website to be displayed when the blue **More info** hyperlink on the multimedia device is pressed.
- **Automatically open the meeting after the meeting is activated**: Select the checkbox to automatically open the meeting once the meeting is activated (Multimedia device only).
- **Automatically start the agenda when the meeting is opened**: Select the checkbox to automatically start the agenda when the meeting is opened.
- **Identification** (Only present when license DCNM-LSID is present in the system.): When selected, meeting participants are requested to identify themselves. Select the required option:
  - **No identification at seat required**: Participants are assigned to a fixed seat during the preparation of the meeting, and they do not need to verify themselves at the DICENTIS device.
  - **Identify participant at seat by**:
    Confirmation: Participants use the log in button to confirm their identity at a seat (multimedia and DCNM-DE only).
    User name: Participants enter their user name to confirm their identity (multimedia device only).
    Select from list: Participants can select their name from a list of participants (displayed on the screen line) to confirm their identity (multimedia device only).
    External system: Participants are identified by means of an external system (all DICENTIS devices).
    NFC card: Participants can use an NFC card to identify themselves (DCNM-MMD2, DCNM-DE , DCNM-DSL and DCNM-DVT). To use this option, the system has to be configured for use with NFC tags. See *Persons, page 42*.
  - **Authenticate participant at seat by**:
    User name + password: Participants use their user name and password to authenticate themselves (multimedia device only).
    Select from list + password: Participants can select their name from a list of participants and then use a password to authenticate themselves (multimedia device only).
    External system: Participants are authenticated by means of an external system (all DICENTIS devices).
    NFC card + password: Participants can use an NFC card and a password to authenticate themselves (DCNM-MMD2 device only). To use this option, the system has to be configured for use with NFC tags. See *Persons, page 42*.

Notice!

When one of the “Identify participant at seat” options is selected, a participant is assigned a seat but can log on to another device, if required.

When one of the “Authenticate participant at seat” options is selected, a participant can only log on to a device that has been assigned to him/her in the Participants pane. See *Participants, page 49*.

6.3.5 Participants

Persons can be added to and removed from a meeting by using the **Add** and **Remove** buttons in the **Participants** pane. As soon as a **Person** is added to a Meeting that person becomes a **Participant**.

Persons are added to the system as described in *Persons, page 42*.

Button	Description
Add	Used to add Persons to a meeting.
Remove	Removes the selected participant from the list.

Table 6.1: Button fuction

- **Discuss**: When selected, the Participant is allowed to discuss.
- **Vote**: When selected, the Participant is allowed to vote (requires system license DCNM LVPM and seat licenses DCNM-LSVT). DCNM-MMD2, DCNM-DE , and DCNM-DVT only.
- **Manage meeting**: When selected, the Participant is allowed to manage the meeting (DCNM-MMD2 or Meeting application only).
- **Priority**: When selected, the Participant is able to use the priority button.
- **Vip type**: Assigns additional microphone authorizations to the participant, independent of the microphone mode and numbers of open microphones (use the small triangle and drop-down list to select a Vip type):
  - **Button Operated**: The microphone will always be activated when the microphone button is pressed. This is the default setting for a chairperson.
  - **Ptt Operated**: Push to talk. The microphone will always be activated when the microphone button is pressed and held in. This is the default setting for a discussion device that is used as an interruption microphone.
- **Seat name:** Assigns a participant to the selected seat name. Use the small triangle and drop-down list to select a seat name.
- **Screen Line:** Displays the text/name which will be visible. The Screen Line is configured in **Configure** > **Rooms**. See *Rooms, page 54*.

Notice!

Do not assign a participant to the Meeting application seat, because this could be confusing for the user. The meeting application has a login screen that the user should use to log into the system.

6.3.6 Agenda

An Agenda, which is part of every meeting, can have one or more topics.

- Use the **edit icons** to add or remove a topic.
- Use the **arrow buttons** to change the order of the topics.
- Use the **copy icon** to copy an Agenda.
- To prepare a topic, select the new topic in the tree, and enter the required information, as described in:
  - *Topic details, page 50*
  - *Participant List, page 50*
  - *Speaker waiting list, page 50*

Notice!
The items in the top bar of the agenda pane, Subject, Description, URL, and Discussion Settings can be hidden and displayed by right-clicking on one of the items and then selecting or deselecting the required item.

See also
– *Discussion profiles, page 44*

6.3.7 Topic details

The following information can be defined for an agenda topic:
– **Subject**: Enter a suitable subject
– **Description**: Enter a suitable description
– **URL**: Enter a suitable URL, as described in *Uploading and accessing files (documents, pictures, and presentations), page 93*. Enables documents to be displayed when the blue **More info** hyperlink on the multimedia device is pressed (DCNM-MMD2 only). These documents can be stored on:
  – the **DcnmMeetingDocuments** website
  – the customer's website
– **Discussion settings**:
  – Select the required profile from the drop-down list.
  – Click the text in the drop-down list. The discussion setting of the agenda topic will open. Make your settings, and optionally save them as a new profile.
  – See also: *Discussion profiles, page 44*.

Notice!
As the discussion settings are defined in a profile, a local copy of the discussion settings is made and stored in the agenda topic. This means, that after a profile has been selected in an agenda topic, the discussion settings of an agenda topic are not updated when a profile is changed.

6.3.8 Participant List

All Participants that are assigned to the meeting can be selected and added to the **Speaker waiting list**.
– Use the **Add** button to add the selected **Participant** to the **Speaker waiting list**.
– The **Filter by** text box can be used to narrow the search, for example **Participant** names.

6.3.9 Speaker waiting list

The **Speaker waiting list** is used to set up the sequence of the **Participants** who are planned to speak during the agenda topic.
– Use the **arrow buttons** to change the order.
– Use the **Remove** button to remove the selected **Participant** from the **Speaker waiting list**. This participant will stay a Participant in this meeting.

6.3.10 Voting script

A Voting script, which can have one or more voting rounds, can be added to a meeting. Use the following procedure to add a voting round to a Voting script:

1. In the tree, click on **Voting script** (green tick mark).
2. In the right pane, click on a row.
3. At the top of the page:
   - Use the **blue plus** icon to create an empty voting round (all settings have to be manually updated).
   - Use the **blue minus** icon to delete a selected voting round.
     Note: To delete multiple voting rounds, use **Shift** + left mouse click to select the voting rounds, and then click the **red cross**.
   - Use the **duplicate** icon to create a new voting round, based on the settings of the selected voting round.
   - Use the **up/down** arrows to change the order of a selected voting round.
4. To prepare a voting round, select the voting round in the tree, and then enter the required information, as described in *Voting round details, page 51*.

6.3.11 Voting round details

The following information can be defined for a voting round (voting functionality is only available on a multimedia device, DCNM-DE, and DCNM-DVT):

Number: For entering the reference number of the voting round.

Subject: For entering the subject of the voting round.

Description: For entering a short description of the voting round.

URL: Enter a suitable URL, as described in *Uploading and accessing files (documents, pictures, and presentations), page 93*. Enables documents stored on the **DcnmMeetingDocuments** website to be displayed when the blue **More info** hyperlink on the multimedia device is pressed (multimedia device only).

Vote settings:

Answer set: Drop-down list with options for:

- **For/Against**
- **For/Against/Abstain**
- **For/Against/Abstain/DNPV**
- **Yes/No**
- **Yes/No/Abstain**
- **Yes/No/Abstain/DNPV**

Notice!

DNPV (Do Not Participate in the Vote). This option allows participants to indicate that they do not want to participate in the vote.

Voting timer: For defining a time for a voting round. The voting time is displayed on the multimedia devices and in the voting screen of the Meeting application (DCNM-MMD2 only). The voting timer has radio buttons options for:

- **No voting timer**. When selected the voting timer is not used, and the voting timer **Duration** box is hidden.

- **Keep voting round open when time is reached.** When selected, the voting round is kept open when the voting time has expired. Participants can still cast or change their vote. The additional time is shown as a negative value. For example, if a voting time was set for 30 seconds (00:30), -00:30 will be displayed after one minute.
- **Hold voting round when time is reached.** When selected, the voting round is put on hold when the voting time has expired. The voting round can be resumed and put on hold as required. The additional time is shown as a negative value. Participants can still cast or change their vote.
- **Close voting round when time is reached.** When selected, the voting round is closed when the voting time has expired. Participants can no longer cast or change their votes. Voting must take place within the specified time.
- **Duration**. For entering a value for the voting timer. Use the **up/down** arrows to select the time in minutes and seconds**.**

Type:

- **Open voting with:** For selecting one of the 'open voting' options ('open voting' is sometimes referred to as 'public voting'). When selected, data from the individual voting rounds is saved in xml files on the DICENTIS server. For more information see, *Voting results file, page 71*.
  - **Total and individual interim results**: During voting, the total interim results are displayed on the multimedia devices and the Meeting application. The total and individual results are available on the API while the voting round is open.
  - **Only total interim results**: During voting, the total interim results are displayed on the multimedia devices and the Meeting application. The total results are available on the API while the voting round is open. Individual results are available when voting is on hold or closed.
  - **No interim results**: During voting, only the cast vote of each participant is displayed on their multimedia device. The interim results (individual and total) are not displayed on the multimedia devices, the Meeting application, or the API. Individual and total results are available on the API when the voting round is on hold or closed.
- **Prevent influencing (no interim results and cast vote is hidden).** When selected, the cast vote is hidden. When the voting round is open, interim and total results are not displayed on the multimedia devices, Meeting application, or API. Total and individual results are saved on the DICENTIS server. When the voting round is on hold or closed:
  - the total results are displayed on the multimedia devices and the Meeting application.
  - individual results are available via the API when the voting round is on hold or closed.
- **Secret ballot**: When selected, the cast vote is hidden. Individual results are not displayed on the multimedia devices, Meeting application, or API, and cannot be retrieved from the DICENTIS server or via the API.
  - **Only total interim results.** When selected, the total interim results are displayed on the multimedia devices and the Meeting application.
  - **No interim results.** When selected, the total results are only displayed when voting is on hold or closed.

100% setting: This setting determines the way the votes are counted (what makes up the 100%) in the meeting results in the Meeting application, the meeting log, the voting results XML file, the synoptic layout, and the .net and Conference API. Requires DCNM-LVPM license.

- **Authorized for voting.** 100% are all people who are authorized to vote and who have been assigned to the meeting (regardless whether they are present or not). Whether they are actually voting or not is irrelevant.

- **Authorized for voting and present in the meeting (attendance).** 100% are all people who are authorized to vote and who are present in the meeting.
- **Present button.** When selected, participants have to press the **Present** button, before they can vote. 100% are all people who have pressed the **Present** button. They do not actually have to have voted, having pressed the **Present** button is sufficient.
  The **Present** button can be enabled for the basic voting settings (when there is no active meeting), or during ad hoc voting (a voting run during a meeting).
- **Cast votes.** Only the votes of people who have cast their votes are counted in the voting results.

Save settings as default button**:** Saves the **Vote settings** of the selected voting round as the default for creating a new voting round.

Notice!
The Save settings as default feature can be helpful if you want to create multiple voting rounds that have the same Vote settings.

- Use the button like this:
  - Select the voting round you want to reuse, by clicking the green icon in the tree.
  - Click the **Save settings as default** button.
  - Click **Voting script**, and then use the ‘plus’ icon to create a new voting round with your favorite settings.

6.4 Configure

Configure is used to set up and configure the system. To start configuration on the main screen, click **Configure**. This opens the **Configure** screen. Use the tree in the left pane to navigate this screen. Click the small triangle to open the menu items in the tree.

Configure means:
- Add **User groups**.
- Add/modify/delete **Users** information.
- Define **Rooms**.

Preconditions
- The user logged on needs to have the user right **Configure system**.

6.4.1 User groups

User groups can only be defined if you have the necessary rights. Different types of **User groups** can be created by defining privileges for each user group. Examples of **User groups** are; secretary, operators, etc.
- To add, remove or copy **User groups**, use the **edit icons**.
- **Access Rights**: Per **User group** several options can be selected.
- **Authentication**: Per User group **Windows Authentication** can be selected. When enabled, the user name and password will be validated against the data in the Windows Authentication server. When disabled, the password will be checked against the password that is stored in the DICENTIS Meeting Application.
  When **Windows Authentication** is used, the PC running the DICENTIS services and the MMDs must be able to access the Windows Authentication server. The user name has to be used in combination with the domain, for example, *USA\Bill* where *USA* is the name of the domain and *Bill* is the user name of the user.

6.4.2 Users

To add **Users** that should logon to the system, click **Users** in the tree.
Here the **Users** are listed. To add or remove **Users**, use the edit icons.

For each **User**: **General** and **Security** fields can be entered:
- **General** fields are for example, name, title, country.
- **Security** fields are used to be able to logon in the Meeting application and the multimedia devices.

To add a participant picture, click **Change**. Select the picture you want to display for the user and click **Open**. The picture will be displayed in the login screen at **Select from List**, in the participant details in the list of users taking part in a meeting, and in Synoptic Microphone Control if a participant is present. Click **Delete image** to remove the picture.

6.4.3 Rooms

Rooms contain all settings related to the room.
To change the room details, the user right **Configure system** is needed.

Room details
- **Automatic seat assignment**: When selected, a new device connected to the system:
  - is automatically assigned to a seat.
  - has the seat license assigned, when available.

Uncheck the **Automatic seat assignment** checkbox after you have configured the system. This gives you more control over your system with respect to replacing devices and adding seats.

- **Default participants device GUI language**: Use the drop-down list to select the required GUI language of all multimedia devices.
- **Screenline definition**: The screen line is defined here. To activate the screen line, click the **Apply** button. The information entered in the general fields of a Person or User (i.e.: FirstName, LastName, MiddleName, Title, Region, Country) can be inserted here by using the $-sign directly in front of the description.
  Screenline definition example: $FirstName $LastName $MiddleName $Title $Region $Country

Optionally the number of characters of an item shown can be limited from 1 to 99 by adding the number behind the field between parentheses. Numbers used below 1 or above 99 are parsed as normal text. The screen line entry must contain at least one of the above items. If the entry is not accepted, it is enclosed within a red box.

- **Meeting notes location**: The location of the meeting notes is defined here. By default, the meeting notes are saved on the Server PC in: **\ProgramData\Bosch\DICENTIS**.
  Use the **Browse** button to select another location, if required. For more information on the meeting notes, refer to *Post-meeting tools, page 70*.
  Note: The default location for the meeting notes is only displayed if the DCNM-LMPM license is activated.
- **HTTP Proxy devices**:
  - **Proxy address**: Address (IP address or host name) of the host running the proxy server.
  - **Proxy port**: Port number of the host running the proxy server. This is the port at which the proxy server will listen to clients.
- **Image server info:**
  - **Image server url:** Address (IP address or host name) of the host running the image server. This is by default the same PC the DICENTIS Meeting Application is installed on. To avoid performance and/or space issues you can install the image server on a different computer. Refer to *Installing the image server on a different computer, page 92*.
  - **Test image server connection** button: Used to test if the image server connection is working. If the configuration is working properly, the message '**Successful**' is displayed. This is especially useful if the image server has been moved to a different PC.
- **Customer logo**: Click **Change** to select a logo (e.g. your company logo) that will be displayed:
  - in the login screen of the multimedia device
  - in the home screen of the multimedia device
  - in the camera view of the multimedia device if no camera has been configured or if **Display video on device** is not selected under **Prepare > Discussion profiles > Speaker Viewing Options**. Refer to *Meetings, page 46*.
  - in the home screen of the meeting application
  - **Note:**
  - The recommended size of the logo image is 1024 X 600 px.
  - It is recommended that the selected logo is plain at the corners, because the image will cropped by 150 px at each end to display the image on the camera view.
  - It is recommended to use images with dark, preferably black background for optimum readability of texts.

- The image will automatically be scaled vertically to fit the camera view window (a small part from the left side and right side will be cut off) if the aspect ration is different from 1024 X 600 px.

– **Presentation Source**:
  – **Default (DcnBeamer):** Use the DcnBeamer application as your default presentation source. Copy the DcnBeamer directory to a USB-drive and then run it from that location on a remote notebook.

Notice!
The horizontal resolution of the PC running the DcnBeamer.bat should be dividable by 8. If this is not the case, the image can be distorted on the multimedia device and Meeting Application.

– **H.264 stream**: Enter the URL of the H.264 presentation source you use, refer to the documentation of your presentation source (e.g. RTSP://<IP address HD Conference Dome>). The H.264 stream is packed in RTP stream according to http://www.rfc-base.org/txt/rfc-3984.txt
It can be configured as:
- direct RTP stream (unicast and multicast)
- RTP stream served by an RTSP server (unicast and multicast).
The settings of the H.264 stream are:
- 720p25 or 720p30.
- Target bit-rate 2Mbit/s
- Maximum bit-rate 2.5Mbit/s.
- GOP length 15 (also known as I-Frame distance).
- No B-frames, I and P frames only.

6.4.4 Audio settings

- **Audio tones**: Use the **Set** and **Remove** buttons to upload and remove custom chimes for **Summon** and **Priority**.
  Audio file specification:
  - PCM format.
  - 16 bits per sample.
  - 48 k sample rate.
  - Mono.
  - Max 700 kb file size.
- **Audio tones audible on headphones**: When selected, the audio tones are sent to the headphones of the participants and interpreters. **Off** by default.
- **Mic**: Shows the signal of the microphones when they are being spoken in.
- **System**:
  - **Master volume**: Master volume to control the devices' loudspeakers and the sound reinforcement output.
  - **LSP**: Sets the volume for the device loudspeakers in decibel (dB).
  - **SR**: Sets the volume for the sound reinforcement output.
  - **Change EQ**: Sets the equalizer for both the device's loudspeaker and the sound reinforcement output.
- **Line Input / Output**:
  - **In 1**: Sets the sensitivity of Line input 1.
  - **Out 1**: Sets the sensitivity of Line output 1.
  - **Ambient**: Sets the ambient audio **On** or **Off** for Line input 1:
    On (default setting): Audio connected to **In 1** is only routed to the delegate headphones and the recorder output when no microphone is active.
    Off: Audio connected to **In 1** is always routed to the delegate loudspeakers, delegate headphones, and the PA output.
  - **In 2**: Sets the sensitivity of Line input 2.
  - **Out 2**: Sets the sensitivity of Line output 2.
  - **In 2 / Out 2 mode selection menu**: Defines the mode of Line input 2 and Line output 2. Click the arrow on the drop-down list to choose between:
    LSP: When selected, allows the audio from the delegate's loudspeaker to be amplified by an external system.
    Recorder (Int. floor): When selected, allows the audio to be recorded.
    Mix-minus: When selected, prevents acoustic feedback when two systems are connected for example via telephone coupler.
    Insertion: When selected, allows an external system to process/equalize the audio.
    Unprocessed: When selected, receives/sends the unprocessed audio from **In 2 / Out 2.**
  - For more information, see Audio routing settings.
- **Dante Input / Output**:
  - **In 1**: Sets the sensitivity of Dante ™ / OMNEO input 1.
  - **Out 1**: Sets the sensitivity of Dante ™ / OMNEO output 1.
  - **Ambient**: Sets the ambient audio **ON** or **OFF** for Dante ™ / OMNEO input 1:
    ON (default setting): Audio connected to **In 1** is only routed to the delegate headphones and the recorder output when no microphone is active.
    OFF: Audio connected to **In 1** is always routed to the delegate loudspeakers, delegate headphones, and the PA output.
  - **In 2**: Sets the sensitivity of Dante ™ / OMNEO input 2.

- **Out 2**: Sets the sensitivity of Dante ™ / OMNEO output 2.
- **In 2 / Out 2 mode selection menu**: Defines the mode of Dante ™ / OMNEO input 2 and Dante ™ / OMNEO output 2. Click the arrow on the drop-down list to choose between:
  LSP: When selected, allows the audio from the delegate's loudspeaker to be amplified by an external system.
  Recorder (Int. floor): When selected, allows the audio to be recorded.
  Mix-minus: When selected, prevents acoustic feedback when two systems are connected for example via telephone coupler.
  Insertion: When selected, allows an external system to process/equalize the audio.
  Unprocessed: When selected, receives / sends the unprocessed audio (also referred to as dry signal) from **In 2 / Out 2.**
- For more information, see Audio routing settings.

Configuring Dante ™ compatible devices
The DICENTIS Conference System supports integration with third party Dante ™ compatible devices (like for example, a laptop). Configuring which Dante inputs and outputs are routed to the Dante inputs and outputs of the DICENTIS Conference System is done via Audinate's Dante Controller which can be downloaded from the Audinate website.

Note: The Dante Virtual Device is running on the DICENTIS Conference System server for the Dante functionality. Only one Dante device can be active on a computer, therefore it is not possible to install any other Dante device on the DICENTIS Conference System server.
Note: The Dante Controller can be run from any computer in the network. Its serves to route Dante inputs and outputs between Dante compatible devices.

1. Open the Dante controller **Network view**.
2. The new Dante devices from the APS are shown on the screen:

- Dante Receivers:
  DICENTIS <hostname server>
  - Dante In 1
  - Dante In 2
- Dante Transmitters:
  DICENTIS <hostname server>
  - Dante Out 1
  - Dante Out 2
- All other devices that are visible on the network are shown as well.

Next, multicast streams need to be created from the transmitters, as the DICENTIS Conference System utilizes these:

1. Press **Ctrl-D** to open the **Device info** view.
2. Select the device you want to configure to work with DICENTIS.
3. Go to the **Transmit** tab.
4. Press **Ctrl-M** to create a multicast flow.
   Make sure to select only 1 channel per multicast flow.
5. When the multicast flows have been created, switch back to the Dante controller network view to create the connections you want. All successful connections are shown by a check mark.
   For further details on configuring Dante, refer to the "Dante Controller User Guide".

- **Acoustic Feedback**:
  - **No Acoustic Feedback Suppression (AFS):** Off, sets the AFS function to “off”.
  - **Natural speech Acoustic Feedback Suppression:** Sets the AFS function to “on” and selects the natural algorithm for speech.
  - **Maximum Acoustic Feedback Suppression:** Sets the AFS function to “on” and selects the maximum algorithm for speech, which reduces the risk of acoustic feedback (howling) at higher system volume levels.
    Note: Audio artifacts might occur at higher volume levels.
  - **Loudspeaker is active when microphone is on:** Enables the loudspeaker of the device, when the microphone is on.
  - **Attenuate headphone when speaking by x dB**: x can be set using the textbox or the slider. The range of x is 0 dB up to 12 dB. Attenuates the headphone volume of the device, when the microphone is on.
- **Mute**: When selected, mutes the Line Input / Output or Dante Input / Output. There are separate mute buttons for **In 1 / Out 1** and **In 2 / Out 2**.
- **Test Tone**: To test the audio in the system. Select either **Off**, **1 kHz**, or **Sweep**.
  Note: When a **Test Tone** option is selected the **Test Tone** checkbox appears in the **System** and **Line Input / Output** fields**.**
- **Headroom:** When Unprocessed is selected, the headroom can be set for the Line 2 and Dante 2 outputs. The range is from 3 dB up to 30 dB. Headroom is the buffer you have against transient peaks or loud sounds before the system goes into clipping.

See also

- *Audio routing settings, page 60*

6.4.5 Audio routing settings

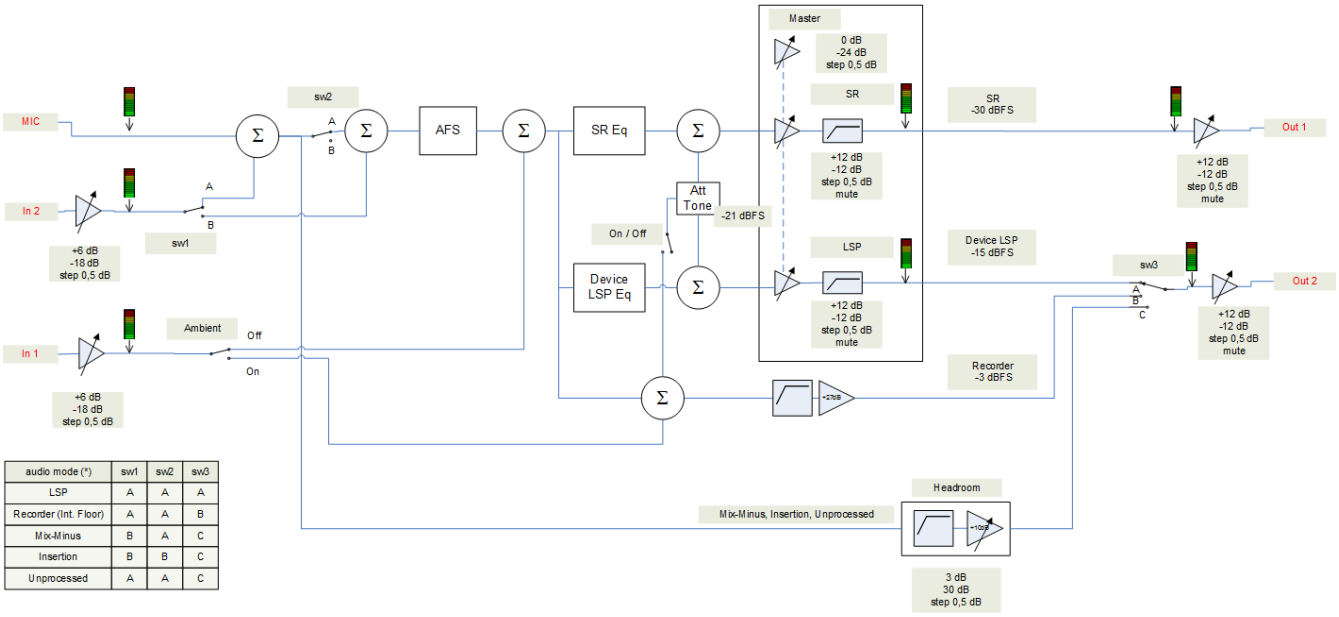
The following options are available for the audio routing:

- **LSP**: Use this mode if you want audio output 2 of the Audio Powering Switch to transmit a signal that can be connected to an external public address system. The Audio Powering Switch sets:
  - volume signal level.
  - audio equalization.

  Audio input 2 signal of the Audio Powering Switch is added to the floor signal.
- **Recorder (Int floor)**: This is the default audio I/O routing mode. Use this mode if you want audio output 2 of the Audio Powering Switch to transmit a signal that can be connected to an external audio recorder. The Audio Powering Switch has no effect on the volume level of the signal. Audio input 2 signal of the Audio Powering Switch is added to the floor signal.
- **Mix-Minus:** Use the Mix-Minus mode to prevent acoustic feedback when two systems are connected, for example with a telephone coupler, via the audio input and audio output 2.
- **Insertion**: Use this mode to enable audio output 2 and audio input 2 of the Audio Powering Switch to add signals from external audio devices.

  Example: An external audio mixer is connected between audio output 2 and audio input 2 of the Audio Powering Switch.
- **Unprocessed:** Use the Unprocessed mode to receive / send the unprocessed audio (also referred to as dry signal) to input 2 and output 2 of the Audio Powering Switch**.**

  See the following figure for a schematic overview of these settings:



audio mode (*)	sw1	sw2	sw3
LSP	A	A	A
Recorder (Int. Floor)	A	A	B
Mix-Minus	B	A	C
Insertion	B	B	C
Unprocessed	A	A	C

Figure 6.5: Audio Routing Settings

6.4.6 Camera Settings

The camera settings page enables a technician to quickly and easily configure/update the camera settings.

- The Status column indicates whether a camera is connected (by means of a red cross or a blue check mark), enabling the technician to carry out any corrections. Cameras that are no longer used are marked by a red cross and can be easily deleted, using the minus (-) symbol.
- The camera name can be changed to a logical name, making it easy to find.
- The camera website can be quickly accessed by clicking a hyperlink.
- The camera type is automatically detected and displayed.

Camera settings are only available if software license DCNM-LCC is installed.

Prior to a meeting a technician can configure the camera:

1. Add the camera to the list of cameras.
2. Configure to which SDI input it is connected in the XML configuration file, see *Configuration Procedure, page 76*. The SDI makes it possible to dynamically switch HD-SDI video signals on the MMD or in the Meeting Application.
3. If required, configure the H.264 video stream of the camera. This can be an external H. 264 encoder if necessary.
4. Configure the camera presets (Prepositions), allowing the technician to:
   - Call up presets
   - Pan, tilt, zoom the camera
   - Focus near, focus far
   - Store presets

During a meeting:

1. The system controls the camera via the stored presets.
2. The operator can control the camera via the PTZ-control (Pan, Tilt, Zoom) in the Meeting Application and modify presets and store them. The PTZ-control is called up by clicking the ... at the bottom right of the Meeting Application screen.

Camera Settings

- **Overview**: Defines the camera used as the overview camera.

The following video options are supported:

- Bosch Onvif (compliant) cameras.
- Panasonic SDI/IP cameras which support HD Integrated Camera Interface Specifications version 1.06. The H.264 stream of the Panasonic cameras is not supported. An external H. 264 encoder is required if the H.264 stream needs to be displayed on the multimedia devices. If the video stream only needs to be displayed on the Meeting Application, the H. 264 stream of the Panasonic camera can be used (e.g. rtsp://<ipaddress>/mediainput/h264/stream_2).
- Sony SDI/IP cameras which support CGI Commands according to Sony standards (RCTG001, RTSP streaming function supported by Sony). The second H.264 stream of the Sony camera can be used to display on the multimedia devices and the Meeting Application. It is also possible to use an external encoder to encode the SDI stream for display on the multimedia devices and Meeting Application.
  Note: The Sony camera needs to be placed in a separate VLAN to avoid problems with the multicast data.
  Please configure the H.264 correctly so it will be displayed properly:

Image 2	
Image codec 2	H.264
Image size 2	704 x 576
Frame rate 2	25 fps
I-picture interval 2	5 S
H264 profile 2	Main
Bit rate compression mode 2	VBR
Image quality 2	6
Maximum bit rate limit 2	Yes
Max kbps	2500
Stream	rtsp://<ip address>/video2

– External video streams.

For specific video camera types see “System Overview” , *page 13*.

Notice!

Ensure that the Bosch Onvif Camera has firmware 5.80 or higher, with the following settings:
- H.264.
- Set the main frequency of the HD conference dome from 50Hz to 60Hz to reduce the latency (Settings\Advanced mode\Camera\Installer Menu).
- 720p50 or 720p60.
- Target bit-rate 2Mbit/s.
- Maximum bit-rate 2.5Mbit/s.
- GOP length 15 (also known as I-Frame distance).
- No B-frames, I and P frames only.

– **Add**: Click the plus (+) symbol to add a new camera. Bosch Onvif cameras are automatically detected, but Panasonic and Sony cameras need to be added manually.
  – Enter the **IP address or host name** of the camera in the network. After saving the camera settings, you can click the blue hyperlink in the camera overview screen to access the camera website (allows for easy configuration of the camera).
  – Enter the **Camera user name** and **Camera user password**. The default username and password for Sony was “admin” “admin” and for Panasonic “admin” “12345” at the time this manual was written.
  – Enter the **H.264 video stream**. The H.264 image can be displayed on the MMD and in the Meeting Application. In case the image only has to be displayed in the Meeting Application, the camera’s H.264 stream can be used. If the stream also has to be displayed on the MMD, it is recommended to use the Epiphan (external H.264) encoder.
  – Select the **Control protocol**. <Panasonic> or <Sony>, for Panasonic or Sony cameras. Select <Unknown> if you want to add an external video stream.
– **Delete**: Click the minus (-) symbol to delete cameras that are no longer connected. Deleted cameras are also removed from the configuration file of the HD-SDI video switcher, which makes it easier to maintain.

- **Camera name**: This is the default name of a connected camera.
  In the **Camera name** column on the right side of the screen, you can change it to a logical name, e.g. right-side or front. This makes it easier to identify the camera when assigning it to a seat in the **Seat and Devices** page. See *Seats and Devices, page 63*.
- **Type**: This is the type of camera connected, e.g. PTZ (Pan Tilt Zoom).

Configuring additional video streams

The DICENTIS system can discover Bosch Onvif (compliant) cameras, allowing the active speaker to be displayed on the multimedia device.
However, other video input solutions and even HD-cameras that convert their video through encoders can be configured, so that the DICENTIS system can detect them as if they are supported cameras. The provided video streams should comply with the standards used within the system (e.g. Real-Time Streaming Protocol, RTSP).

The H.264 (data type/codec) stream is packed in RTP stream according to:
http://www.rfc-base.org/txt/rfc-3984.txt
It can be configured as:
- direct RTP stream (unicast and multicast).
- RTP stream served by an RTSP server (unicast and multicast).

The settings of the H.264 stream are:
- Set the main frequency of the HD conference dome from 50Hz to 60Hz to reduce the latency (Settings\Advanced mode\Camera\Installer Menu).
- 720p50 or 720p60.
- Target bit-rate 2Mbit/s.
- Maximum bit-rate 2.5Mbit/s.
- GOP length 15 (also known as I-Frame distance).
- No B-frames, I and P frames only.

See also

- *System Overview, page 13*

6.4.7 Seats and Devices

The main purpose of this screen is to assign seats to, and un-assign seats from devices.
If the **Automatic seat assignment** checkbox under the **Rooms** tab is selected, a new device connected to the system is automatically assigned to a seat and has the seat license assigned, when available.
The **Automatic seat assignment** checkbox under the **Rooms** tab should not be selected if you want to manually assign and un-assign seats. Use the **Assign device to seat** button and **Un-assign devices from seat** button to manually assign and un-assign devices. These buttons and their associated options are described in the following sections:

Seats Assignment pane

- **Configure mode (select on device)** checkbox: Used for locating multimedia devices. When this checkbox is selected, a **Select device** button is displayed on all multimedia devices. Pressing this button:
  - switches on the microphone LED.
  - displays a green tick in the **Select** column next to the seat and device name.
    This feature can be particularly useful when you want to locate seat positions in a large conference hall.

Notice!
When **Configure mode** is active, the devices cannot be used for discussion purposes. Pressing the microphone button will function to locate the device.

If Synoptic Control is used and the **Configure mode (select on device)** checkbox is selected:

- The microphone LED on the device will be illuminated when moving the icon in the synoptic layout. This makes it easier to identify the device in the room during configuration.
- When the **Select device** button on the device is selected, the icon in the synoptic layout turns red.
- When the **Microphone** button on the device is selected, the icon on the synoptic layout turns red.
  Note: The option is only available when there is no active meeting, because this would otherwise disturb the meeting.
  See also *Configuration Procedure, page 79*.
- **Rename Seats** checkbox: Enables you to assign logical names indicating the position of the seats in the room, e.g. Row 1, Seat 1.
  When **Configure mode** is active and this checkbox is selected, you can enter the name of the first seat that will be selected. The first device / seat on which the **Select device** or microphone button is touched, will get the seat name that was entered. For each consecutive device, the number will be increased by one. If only text was entered in the seat name, the value will not increase.

Notice!
After renaming seats, deselect **Configure mode** to restore the discussion devices for regular use. When **Configure mode** is active, you cannot activate a meeting. Vice versa, when a meeting is in progress, you cannot use the **Configure mode**.

- **Select:** Used for locating assigned discussion devices.
  Click anywhere in a row to select it (the row is highlighted blue). Click the **Select** cross-hair, and hold down the mouse button. A blue tick is displayed next to the seat and device name. The selected device is also indicated in the lower pane. To help you locate the seat position assigned to a multimedia device, the screen of the device will flash every time the mouse button is clicked.
- **Name**: This is the name of the seat. Double-click this field to select it. You can then type a new seat name.
- **Status**: Shows the status of multimedia devices assigned to seats:
  - **Blue tick**: Device is assigned to a seat.
  - **Red cross:** Device is unassigned from a seat.
- **Devices**: This is a list of the connected devices:
- **Discuss** checkbox: For setting Discussion rights for seats.
- **Manage meeting** checkbox: For setting Manage meeting rights for seats.
- **Priority** checkbox: For setting Priority rights for seats.
- **VIS type** (Very Important Seat): This drop-down list is used to assign additional microphone authorizations to a seat, independent of the microphone mode and the number of open microphones:
  - **None: No VIP settings selected.**

  - **Button operated**: Pressing the button once activates the microphone. This is the default setting for a chairperson.
  - **Ptt operated**: Push-to-talk. Press and hold to activate the microphone. This setting is default used as an interruption microphone.
- **Voting**: If DCNM-LSVT is available, licensed seats can be assigned the **voting** function (DCNM-MMD2, DCNM-DE, DCNM-DVT, Meeting Application, Synoptic application, and API). Free and available licenses are numbered in the header of the voting column. When selected:
  - The number of free voting licenses decreases.
  - Voting sessions can be managed and controlled (DCNM-MMD2, Meeting Application, and API).
  - Votes can be cast on licensed DICENTIS devices, by touching the color-coded representative button on the displays of the devices.
  - The voting results are automatically displayed as color-coded bar graphs on the displays of the conference devices (Meeting Application, multimedia device, DCNM-DE, Synoptic application, and API).

    Note: To manage and control voting within an active meeting, the user right '**manage meeting**' is required.
- **Identification**: If DCNM-LSID is available, participant login **identification** credentials can be assigned to licensed seats/multimedia devices (multimedia device, DCNM-DE, DCNM-DSL and DCNM-DVT only). Free and available licenses are numbered in the header of the identification column.

  When selected:
  - The number of free identification licenses will be decreased.
  - Free and fixed seating is possible.
  - A participant welcome screen (with i.e. participant credentials) is displayed on the multimedia device display (multimedia device and DCNM-DE only).
  - A meeting participant login screen can be displayed on the display of the multimedia devices (multimedia device and DCNM-DE only).
  - User login credentials can be requested and entered at the multimedia devices (multimedia device only).
  - Attendance registration for meetings and voting rounds is enabled when an identification method is configured for the meeting.
  - The camera and pre-position of this camera can be assigned to seats, if DCNM-LCC is available.
- **Language selection** checkbox: If DCNM-LSSL is available, the language selection function can be assigned to licensed seats (multimedia device, DCNM-DE and DCNM-DSL only). This enables users to select an interpreted language on the device. Free and available licenses are numbered in the header of the voting column.
- **Camera**: This drop-down list is used to select a camera. The camera name can be changed in **Camera Settings**. See *Camera Settings, page 61*.
- **Preposition:** Defines which pre-position is used for the overview. This field is hidden, when the "camera selected for overview" does not support pre-positions.
- **Un-assign devices from seat** button: Un-assigns a selected device from a seat.

  Use the button like this: In the **Devices** column, click on the device you want to un-assign (the row is highlighted blue). Click the **Un-assign Devices from seat** button. The **Status** column displays a red icon to show that the device is unassigned, and the details of the unassigned device appear in the **Unassigned Devices** window.

- **Delete empty seats** button: Removes empty seat rows. An empty seat row is created when a device is unassigned from a seat as explained above. Clicking the button will remove multiple seat rows at the same time.
- **Create empty seat** button: Creates a new row for assigning a device to a seat.

Unassigned Devices pane

- **Select**: Used for locating unassigned multimedia devices.
  Use the button like this: Click anywhere in a row to select it (the row is highlighted blue). Click the **Select** checkbox, and hold down the mouse button. A green tick is displayed next to the seat and device name. To help you locate the multimedia device, the screen of the device will flash every time the mouse button is clicked.
- **Name**: The name of the installed component, e.g. EINZ1315-MeetingApplication, MMD-5811430716101008-MultimediaDevice.
- **Type**: The type of device, e.g. MultimediaDevice.
- **Serial**: The serial number of the device, e.g. 5811430716101008.
- **Version**: The firmware version of the device, e.g. 1.40.7715.
- **Assign device to seat** button: Assigns a selected device to seat. Use this button when you want to replace an existing device, i.e. the device is defective
  Use the button like this: Click anywhere in a row to select it (the row is highlighted blue). In the **Seats Assignment** pane, click the seat that you want to assign the device to. In the **Unassigned Devices** pane, click the **Assign device to seat** button.
- **Create seat from device** button: Creates a new seat row in the **Seat Assignment** pane with the selected device assigned to that seat.
  Use this button when you want to quickly create new seat positions with devices automatically assigned. Click anywhere in a row to select it (the row is highlighted blue). Click the **Create seat from device** button. The device and the newly created seat appears in the **Seats Assignment** pane.

Lower overview pane

This pane gives an overview of all installed components, such as the Multimedia devices, (Audio) Power switches, Video Switcher, Meeting applications, and Cameras, and shows their version and status. It can be used to enable the power off functionality and volume control, and is useful for diagnostics purposes.

- **Select**: Used for locating multimedia devices.
- **Name**: The name of the installed component, e.g. EINZ1315-MeetingApplication, MMD-5811430716101008-MultimediaDevice.
- **Type**: The type of component.
- **Status**: The working status of the component.
- **Serial Number**: The serial number of the component.
- **Version**: The firmware version of the component.
- **Has Power Off** check-box: Allows the device to power off the system (DCNM-MMD2, Meeting Application, Synoptic application, and API).
- **Has Volume Control** check-box: Allows the device to control the master volume (DCNM-MMD2, Meeting Application, and API).
- **Dual Use** check-box: Allows the device to be shared by two participants (DCNM-D, DCNM-DE, and DCNM-DSL only). Requires software license DCNM-LSDU**.**

6.4.8 Language Selection

- **Language Selection**: If DCNM-LSSL is available, **language selection** (interpretation) can be assigned to licensed seats/multimedia devices. Free and available licenses are numbered in the header of the language distribution column.
  When selected:

  - The number of free language selection licenses will be decreased.
  - On the licensed multimedia devices the available languages can be selected and listened.

Here you can configure:
- the Omneo channel for delivering the floor language to the DCN Next Generation system.
- the languages received from the DCN Next Generation system.
- The way the language is displayed on the device:
- **Original** – the original description of the language is displayed.
- **Number and abbreviation** – the number assigned to the language in **Languages** along with its abbreviation is displayed.
- **Number and original** – the number and the original description of the language is displayed.
- **Abbreviation** – the abbreviation for the language is displayed.

System Channels are available when at least 1 DCNM-LSSL license is detected.
- **Floor output from DICENTIS**: Configures the device and its input number used for delivering the Floor audio to the DCN Next generation system.
  - **Device**: All connected Omneo Devices are displayed under Device. Press the arrow to select a device.
  - **Omi Input**: Omi input number for the selected device. Press the up/down arrows to select an input number.
- **Languages from DCN Next Generation**: Configures the device and its output number used for delivering the interpreted languages from the DCN Next generation system.
  - **Device**: All connected Omneo Devices are displayed under Device. Press the arrow to select a device.
  - **Omi Output**: Omi output number for the selected device. Press the up/down arrows to select an output number.
  - **Languages**: Assigns the language name (of an interpretated language) to an Omi output number.
- **Displayed on device**.

Enable language selection/settings
- To enable language selection on the devices, select the **Language selection** checkbox on the **Seats and Devices** screen. See *Seats and Devices, page 63*.
- To activate changed settings in the system, either:
  - start a meeting, or,
  - restart the DICENTIS services.

Configuring the language selection

DICENTIS can be interfaced with DCN Next Generation to enable interpretation (see following figure). The DCN Next Generation system:
- receives the Floor audio from DICENTIS.
- delivers the interpreted languages to DICENTIS.

The DCN-IDESK is used to configure which language is on which DCN Next Generation Channel. For information on how to do this, refer to the DCN Next Generation installation manual.

The push/rotate button on the Omneo Media Interface (PRS-4OMI4) is used to configure:
- which Omneo input is used to receive the Floor audio from DICENTIS. To do this:
  - select the Omneo Input number.
  - configure the DCN NG channel for Floor (00 is the Floor channel for DCN NG).

– which Omneo outputs are used to send the interpreted languages to DICENTIS. To do this:
  – select the Omneo Output number.
  – configure the DCN NG channel (01 – 31), which is forwarded to DICENTIS.

The DICENTIS application is used to configure:

– which language is received on which Omneo Media Interface Output (the order of the languages determines how the languages will be displayed on the DICENTIS devices).
– which Omneo Media Interface Input the DICENTIS Floor audio is sent to.

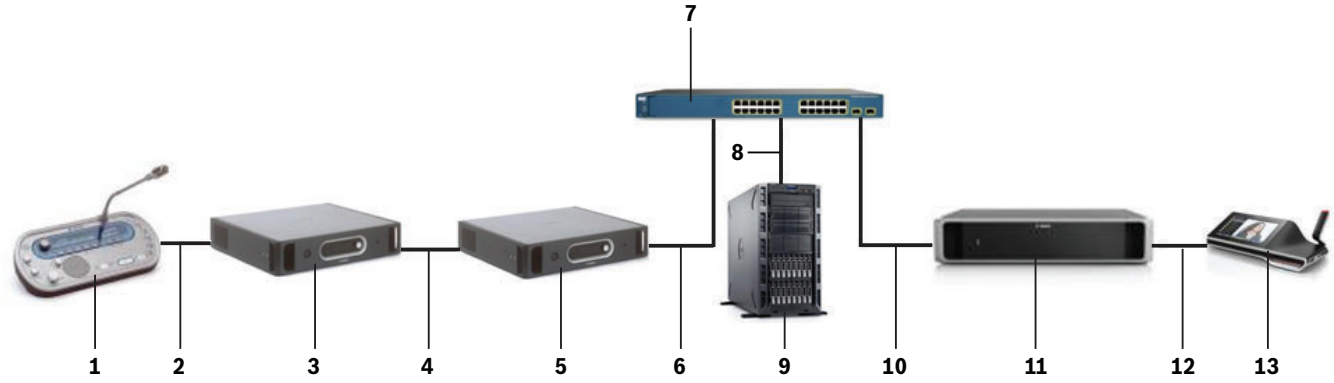


Figure 6.6: Configuring the language selection

1. DCN-IDESK:
   – Interpreter Desk for configuring which languages are on which output channels.
2. LBB 4116:
   – DCN Extension Cable, terminated at both ends with a molded six-pole circular connector.
3. DCN-CCU2:
   – Central Control Unit for DCN Next Generation and DCN wireless systems.
4. LBB 4416:
   – Optical Network Cable, terminated at both ends with network connectors.
5. Omneo media device:
   – Media device with push/rotate button for configuring the DCNNG channels on each 4OMI4 device.
6. Ethernet cable:
   – Ethernet cable terminated at both ends with network connectors.
7. Network switch:
   – Connects the devices together on the network.
8. Ethernet cable:
   – Ethernet cable terminated at both ends with network connectors.
9. DICENTIS Server PC:
   – Activates the DCNM-LSSL language selection at seat licenses.
   – Assigns Language selection licenses to seats.
   – Configures the system channels.
10. Ethernet cable:
   – Ethernet cable terminated at both ends with network connectors.
11. DCNM-APS (Audio Powering Switch):
   – Routes, controls, and processes the audio signals.
   – Supplies power to the DICENTIS devices.

12. DCNM-CBxx:
    – DCNM system Network Cables for connecting DICENTIS components to each other.
13. Multimedia device, DCNM-DE , DCNM-DSL:
    – Participants can select between Floor and the interpreted languages on the DICENTIS devices.

6.4.9 Languages

The predefined languages in the Meeting Application cannot be removed. However, you can add or remove your own (custom) languages and set the sorting order that is used to show the languages during meeting preparation.

To add custom languages:

1. Navigate to **Configure > Languages**.
2. Click the plus sign to add a new language. A blank row is inserted in the list.
3. Enter a number in **Sorting Order**, for example 26. The sorting order number of the languages can be changed. This helps the Technician with easier configuration of the language setup. Refer to *Language Selection, page 66*.
4. Enter a name for the **Language**, for example Swahili. This is used as a general description.
5. Enter the **Original name** for the language. For example, Swahili can be displayed as Kiswahili.
6. Enter an **Abbreviation** for the language. For example, SW. If Swahili is assigned to OMI output-2 it can be displayed as: 26 Kiswahili (so number and language name in the original language) on the discussion and multimedia devices.
7. Enter a second (**User defined**) **Abbreviation**. For example, the official abbreviation for German is “DE”, but you can enter “GER” as user defined abbreviation.

The way the language is displayed depends on the setting selected under **Language Selection > Language is displayed on contribution device as**.

To remove a custom language, select the row you want to delete and click the minus sign.

7 Post-meeting tools

Depending on the installed licenses and system settings, the DICENTIS system can automatically create XML meeting notes files and voting results files that can be used for post meeting analysis (i.e. for making the minutes of a meeting). The meeting notes files and voting results files have their own XSLT style sheets that enable the XML content to be easily viewed in a browser. The “look up table” in these style sheets can be modified so that information can be displayed, for example, in the local language. See the following sections for more information:

7.1 Meeting notes file

When a prepared meeting is activated (requires software module DCNM-LMPM), an XML meeting notes file is created. During a meeting, data is saved to this file as applicable. The file is closed once the meeting is deactivated.
By default, the XML meeting notes files (with tamper detection) are saved on the Server PC. If required, the location for saving these files can be changed. See explanation in **Meeting notes location** in section *Rooms, page 54*.
By default, the following field names are created for a meeting:

Meeting:
- Name
- Description
- URL
- Activated
- Opened
- Closed
- De-activated

List of all present participants
- Participant name
- Group
- Login time

List of absent participants
- Participant name
- Group

Agenda:
- Name
- Description
- URL
- Opened
- Closed

List of all present participants
- Participant name
- Group
- Login time

List of absent participants
- Participant name
- Group

Voting round details
- Reference number
- Subject
- Description

- Opened
- Closed
- State
- URL
- Answer set
- Voting type
- Voting timer type

The present/absent record of participants for meetings and agenda items requires software modules DCNM-LPD and DCNM-LSID. The absent/present record is also available for third-party systems via the API.
The voting round details for meetings requires software modules DCNM-LVPM and DCNM-LSVT.

To view the meeting notes:

1. Browse to the same folder you selected to save the meeting notes in on the DICENTIS server. See explanation in **Meeting notes location** in section *Rooms, page 54*. The XML files are displayed by subject and date and time.
2. Use a web browser (Mozilla firefox, Google Chrome, or Internet Explorer) to open one of the XML files. The displayed browser page can be saved or printed.

See also

- *Rooms, page 54*

7.2 Voting results file

Voting results files

When a prepared voting round is opened (requires software module DCNM-LVPM and DCNM-LSVT), an XML voting results file is created. During a voting round, data is saved to this file as applicable. The voting results file is closed when the voting round is closed.
By default, the XML voting result files (with tamper detection) are saved on the Server PC. If required, the location for saving these files can be changed.
By default, the following fields are created for a voting round:

Meeting:

- Name
- Description
- URL

Agenda:

- Subject
- Description
- URL

Voting round

- Reference Number
- Subject
- Description
- Opened
- Closed
- State
- URL
- Answer set
- Voting type
- Voting timer type

To view the voting results file:

1. Browse to the same folder you selected to save the meeting notes in on the DICENTIS server. See explanation in **Meeting notes location** in section *Rooms, page 54*. The XML files are displayed by subject and date and time.
2. Use a web browser (Mozilla firefox, Google Chrome, or Internet Explorer) to open one of the XML files. The displayed browser page can be saved or printed.

7.3 Modifying the XSLT style sheets

XSLT style sheets for the meeting notes files and voting notes files are included in the location where the voting results are saved, which enables the XML content to be easily viewed in a browser.
You can modify the “look up table” in these XSLT style sheets so that information can be displayed, for example, in the local language. To do this:

1. Browse to the same folder you selected to save the meeting notes in on the DICENTIS server. See explanation in **Meeting notes location** in section *Rooms, page 54*.
2. Make a backup of the XSLT style sheet.
3. Use a source code editor (for example Notepad++) to open the XSLT style sheet.
4. In the look up table, modify the select values, as required. Do not change the name values. See the following example.

Default settings for select:

```
<xsl:variable name="variableMeeting" select="'Meeting'" />
<xsl:variable name="variableMeetingName" select="'Name: '" />
<xsl:variable name="variableDescription" select="'Description: '" />
```

Select value modified for the local language:

```
<xsl:variable name="variableMeeting" select="'Vergadering'" />
<xsl:variable name="variableMeetingName" select="'Naam: '" />
<xsl:variable name="variableDescription" select="'Beschrijving: '" />
```

7.4 Adding custom setting to style sheet after a software update

When the DICENTIS software is updated, the existing XSLT style sheet is not overwritten, as this would delete any custom settings. Instead the installer copies a new version of the style sheet, containing all latest updates, to the **:\ProgramData\Bosch\DICENTIS** default directory, or to the location you entered if you changed the location where results are stored.
Use the following procedures to update new style sheets (and add any custom settings from the previous style sheet):

MeetingResult.xslt style sheet:

1. Rename **MeetingResult.xslt** to any suitable name, for example **MeetingResult_old1.xslt**.
2. Open the automatically created **MeetingResult_new.xslt**, and apply the same customization as for **MeetingResult_old1.xslt**.
3. Add any new customization to **MeetingResult_new.xslt**, as required.
4. Rename **MeetingResult_new.xslt** to **VotingResult.xslt**.

VotingResult.xslt style sheet:

1. Rename **VotingResult.xslt** to any suitable name, for example **VotingResult_old1.xslt**.
2. Open the automatically created **VotingResult_new.xslt**, and apply the same customization as for **VotingResult_old1.xslt**.

3. Add any new customization to **VotingResult_new.xslt**, as required.
4. Rename **VotingResult_new.xslt** to **VotingResult.xslt**.

Note: The installer will always overwrite **MeetingResult_new.xslt** and **VotingResult_new.xslt** during a software update, therefore you should not use these filenames to store any custom settings.

8 System extension

The DICENTIS Conference System is scalable from small to medium to large systems.
A small DICENTIS Conference System (refer to *System Overview, page 13*) consists of:
- Up to 100 DICENTIS Discussion or Multimedia devices
- All devices are in one subnet
- 1 DICENTIS Audio Powering Switch for the audio processing
- 1 Server PC that hosts the DICENTIS services

A system with more than 100 discussion or multimedia devices requires an ARNI (Audio Routed Network Interface). For the system setup, refer to System extension in the Hardware Installation Manual.
An ARNI is used to increase the number of DICENTIS devices on a single subnet and to connect multiple DICENTIS system subnets. If more than one subnet is required, two types of ARNI must be used.
- **OMN-ARNIS** (ARNI S OMNEO interface): The ARNI S is required for increasing the system size above 100 DICENTIS Discussion or Multimedia devices. It supports up to 450 DICENTIS nodes in its subnet. It also acts as a DHCP server in its subnet.
- **OMN-ARNIE** (ARNI E OMNEO interface): The ARNI E is required for increasing the system size above 450 DICENTIS nodes. It supports up to 450 DICENTIS nodes in its subnet. It also acts as a DHCP server in its subnet. It can connect up to 40 subnets, each with an ARNI S.

Notice!
Redundant ARNI is not supported in the DICENTIS Conference System.

Notice!
A detailed description of the ARNI is available in the ARNI manual on www.boschsecurity.com > DICENTIS product related information.

DICENTIS Conference System subnet and ARNI preconditions
- An ARNI is used in systems when more than a hundred (100) DICENTIS devices are needed.
- When multiple subnets are used, the subnet in which the DICENTIS PC server is present requires an ARNI-E, the others require an ARNI-S.
- The ARNI Configuration Tool must be used, which can be found in the start menu after installing DICENTIS system server software.
- When configuring ARNI's, make sure that the DICENTIS server PC services are not running. Stop the services using the server console.
- When configuring ARNI's, connect the ARNI directly to the PC (without a (managed) switch in between).
- When setup a multi-subnet configuration, attach each ARNI to the PC one by one to configure it.

Configuration of an ARNI

1. If required/requested, upgrade the ARNI with the OMNEO firmware upgrade tool to the firmware version as already available/installed by the DICENTIS system setup.
2. Start the ARNI Configuration Tool.
3. Follow the wizard steps of the ARNI Configuration Tool to configure the ARNI(s). Furthermore:
   - The type of ARNI is always primary when you are not working with redundancy.
   - Name each ARNI, especially if more then one ARNI is used within the system.
   - Make sure that the IGMP querier is disabled.
   - Enable DHCP for every ARNI.
   - If the IP address of an ARNI must be changed: reset the ARNI to factory default with the ARNI Configuration Tool. Use the function “restore factory defaults”.

Configuration of a switch with VLANs

When configuring a switch with VLANs, ensure the following:

- Use the ARNI as the DHCP server for all VLANs that will contain DICENTIS devices, DCNM-APS and DCNM-PS units. For other VLANs, you may use any other DHCP server.
- Enable IGMP snooping on all ports.
- Enable multicast routing between all VLANs. Use “dense-mode” routing mode.
- Configure unicast routing correctly between all VLANs.
- Use MTU 1500 or larger.
- Set the IGMP snooping to at least 70s (usually 7 retries with 10s interval).
- Enable spanning tree protocol to mode “pvst”.
- Use IGMP version 3.
- Set Timeout of register on multicast to 1 second.

See also

- *System Overview, page 13*

9 Configuring an external HD-SDI switcher

Background information
An external video switcher service can be added to the DICENTIS Conference System for dynamically switching HD-SDI video signals. This enables video signals from a Dome camera to be displayed with low latency on a hall-display.

Caution!
To ensure that the third-party video switcher works correctly, the switcher service must be correctly configured.

9.1 Hardware and software requirements

- Server PC running the DICENTIS software.
- **Bosch DICENTIS Ext.VideoSwitcher** service installed on the server PC.
- DCNM-LCC DICENTIS Camera Control license.
- HD-SDI switcher: the following switches are supported:
- TvOne C2-2355A in combination with TvOne S2-108HD.
- Kramer MV-6.
- TvOne CORIOmatrix.
- TvOne C2-2355A and Kramer MV-6 only: Network switch that filters multicast data towards the HD-SDI switching equipment (the preferred way is by creating a separate VLAN).
- Only one HD-SDI video switcher is supported per system.

Notice!
To control an HD-SDI video switcher, the External Video service must be installed first. This service is part of the DICENTIS setup wizard. During installation, make sure the checkbox for “Bosch DICENTIS Ext.VideoSwitcher” is selected - this checkbox is not selected by default! After the service has been installed, it must be configured.

9.2 Configuration Procedure

The External Video service works on three main inputs:
- HD-SDI Switcher details
- Presentation source input details
- Camera details

To configure these inputs:
1. Use an XML editor to open the following file:
   C:\Program Files\Bosch\DICENTIS\Configuration\Config.xml
2. In the switcher section, configure the connection to the HD-SDI switcher you are using. Take care not to remove parts of the configuration file. Refer to the following example:
   - VideoSwitchers Model can be **“TvOne”**, **“Kramer”** or **“TvOneCorioMatrix”.**
   - VidSwitchPort is the port number of the Video switch.
     For TvOne and TvOneCorioMatrix this is **10001** by default.
     For Kramer this is **5000** by default.
   - VidSwitchIPaddress, e.g. **192.168.0.80**, is the IP address of the switcher.

- VidSwitchUserName is the administrator username (admin) of the switcher (only used for TvOneCorioMatrix).
- VidSwitchPassword is the administrator password (adminpw) of the switcher (only used for TvOneCorioMatrix).

```
<VideoSwitchers Model="TvOne">
 <VideoSwitcher>
  <VidSwitchPort>10001</VidSwitchPort>
  <VidSwitchIPaddress>192.168.0.80</VidSwitchIPaddress>
  <VidSwitchUserName></VidSwitchUserName>
  <VidSwitchPassword></VidSwitchPassword>
 </VideoSwitcher>
</VideoSwitchers>
```

3. If there is a presentation source, e.g. **RGB**, enter the presentation source input between **<VideoSwitchInput>**, as shown in the following example. Do not remove **<PresentationConfig>** if there is no presentation source.
   - TvOne supports two presentation inputs: **RGB**, and **DVI**. **None** can also be entered.
     RGB: Presentation is taken from the VGA port.
     DVI: Presentation is taken from the DVI port.
     None: No presentation (the video switcher will not switch to the presentation source during presentation mode but will continue to display the camera image instead).
   - Kramer does not have a VGA or DVI input, so **None** should be entered when a Kramer MV-6 is used.
   - TvOneCorioMatrix supports **None** or a specified input such as: **Slot_<X>_in_<Y>.**
     For example: **Slot_5_in_1** (for input 1 of the SDI input card which is inserted in slot 5).

```
<PresentationConfig>
 <PresentationSources>
  <VideoSwitchInput>RGB</VideoSwitchInput>
 </PresentationSources>
</PresentationConfig>
```

4. The system will detect the available cameras, and add the details to the config file, as shown in the following example:
   - <CameraId>, <CameraName> and <CameraState> are read only values that are generated by the system. Do not modify these values!
   - <CameraState> lists:
     True: When there is an Active speaker and Presentation is InActive.
     False: No: Active speaker and Presentation is Active.
   - <VideoSwitchInput> contains the input on which the camera is located:
     1 to **X** (numeric) for the TvOne and Kramer model.
     Slot_<X>_in_<Y> for the TvOneCorioMatrix.
     For Example: **Slot_5_in_1** (for input 1 of the SDI input card which is inserted in slot 5).

```
<CameraConfig>
 <Camera>
  <CameraId>99bfb876-59eb-39af-9d3b-b64d0cbc4957</CameraId>
  <CameraName>0440001102250100 81</CameraName>
  <VideoSwitchInput>1</VideoSwitchInput>
  <CameraState>false</CameraState>
 </Camera>
 <Camera>
  <CameraId>9939afb876-39af-59eb-9d3b-b64d0cbc4587</CameraId>
  <CameraName>0440240110225012382</CameraName>
  <VideoSwitchInput>2</VideoSwitchInput>
  <CameraState>false</CameraState>
 </Camera>
</CameraConfig>
```

5. When the External Video Switcher is used in combination with TvOneCorioMatrix, an output must also be configured, as shown in the following example:
   - Do not remove <OutputConfig> if you are using another switcher model.
   - <VideoSwitchOutput> describes the output of the TvOneCorioMatrix in a specific way, such as **Slot_<X>_out_<Y>**.
     For example: **Slot_3_out_1** (for output 1 of the SDI output card which is inserted in slot 3).

```
<OutputConfig>
  <Output>
    <VideoSwitchOutput></VideoSwitchOutput>
  </Output>
</OutputConfig>
```

Notice!
If switcher information, such as switcher model, IP port has changed, a restart of the External video-switcher service is required.

10 Synoptic Microphone Control

Background information

A chairperson or clerk can have more control over a meeting by granting or stopping speech via a visual layout of the speakers' room, thus making the discussion more productive. The functionality consists of two parts:

- Configure Synoptic Microphone Control
- Manage Synoptic Microphone Control

10.1 Configuration Procedure

Synoptic Microphone Control is automatically installed with the server software on the server PC. A user account called "Synoptic" has been created automatically. This user is necessary for the communication between the web application and the DICENTIS server.

Precondition

- To use this page, the logged in user must belong to a User Group that has the right Configure System (for example, Admin User).

To configure synoptic control in the Meeting Application:

1. Navigate to **Configure > Users.**
   - Check if the user account "Synoptic" has been created successfully.
   - The **Password** for the synoptic user is "synoptic".
2. Use the **Synoptic view** button in the Meeting Application to navigate to the web address: http://<serverpc>/synopticcontrol
   - Add the exception, and accept the proposed certificates for all clients that you want to run Synoptic Microphone Control on.
3. Log in with the user "Admin" in the synoptic application.
   - Click the **Select background** button, and select a suitable background for the room.
   - Click the **Start configuration** button.
   - Drag and drop the synoptic icons to the place where they are physically sitting in the room. Use **Show grid** and **Snap to grid** for easier placement in a (large) room.

   Note: If **Start illuminate device** has been selected in the synoptic application, the microphone LED illuminates when moving the device icon in the synoptic layout, so it can be easily identified in the room. If the **Select device** or **Microphone** button on the device is selected, the icon in the synoptic layout turns red.
   - Adjust the size of the icons using the blue plus and minus sign.
   - Once you are satisfied with the layout, click **Stop configuration**.
4. The synoptic layout can automatically switch to displaying voting results when a voting round is open. This can be configured via the **Manual / Auto switch** button. The Web client seat requires a voting license to display the voting results.
5. Navigate to **Seats and devices** in the Meeting Application.
   - Create a seat for the device <serverpc> Webclient.
   - Give the seat a logical name, for example, Synoptic control.
   - Grant "Manage meeting" rights to the seat. This is needed for synoptic to be able to switch the microphones on and off.
   - If the synoptic layout is also used to display the individual voting results in a synoptic layout, a voting license should be assigned to the seat for the synoptic layout.
   - If the synoptic layout is also used to power on and off the devices, the Web client device should be granted **Has power off** capabilities.
6. If participant pictures are available and you want to display them on the Synoptic control (DCNM-LPD is required):

- Navigate to the web address: https://<serverpc>:31418
- Add the exception, and accept the proposed certificates for all clients that you want to run Synoptic Microphone Control on.
- Participant pictures will be displayed on Synoptic Microphone Control.

10.2 Manage Synoptic Microphone Control

Precondition

- An initial first time login and use of participant pictures.

Note: If this has not been done, you will not be able to use the Synoptic Microphone Control.

First time login and use of participant pictures

1. First time login for the **Synoptic Control**:
   - Use the **Synoptic view** button in the Meeting Application to navigate to the web address: https://<serverpc>/synopticcontrol
   - Add the exception, and accept the proposed certificates for all clients that you want to run Synoptic Microphone Control on.
2. First time use of participant pictures on **Synoptic Control** (DCNM-LPD is required)
   - Use the **Synoptic view** button in the Meeting Application to navigate to the web address: https://<serverpc>:31418
   - Add the exception, and accept the proposed certificates for all clients that you want to run Synoptic Microphone Control on. Participant pictures will be displayed on Synoptic Microphone Control.

Notice!

If the IP-address of the DICENTIS server has changed, the synoptic control button may no longer be found in the Meeting Application. To solve this, go manually to the correct address once: http://<IP address DICENTIS Server or hostname>/synopticcontrol.

Manage speakers' microphones

1. Make sure there has been a first time login and use of participant pictures.
2. Log in to the **Synoptic control**:
   - with a username and password of a User that has "Activate meeting" rights,
     or,
   - when a meeting is activated, with a username and password of a participant that has "Manage meeting" rights.
3. Manage the speakers' microphones as required:
   - Click the synoptic icon to allow a speaker to speak that is not speaking.
   - Click the synoptic icon to stop speech if the speaker is speaking.

The Synoptic icon is displayed in different colors to show the speaker state:

- speaking - red
- not speaking - gray
- waiting to speak - green
- first in the speaker list - green blinking

Change synoptic layout from Microphone control to Voting results

The synoptic layout can be manually switched between showing microphone status and showing individual voting results by using the two icons in the bottom bar. If the option has been configured to switch automatically to display individual voting results, the operator can always switch manually back and forth.

System Power On/off button

If the Synoptic webclient device has power off capabilities it can be powered off by:

- a participant who has “Manage meeting” rights,
- a user (who is not part of the User group participants).

11 System Activation Website

The main purpose of the System Activation Site website (https://license.boschsecurity.com) is to activate DICENTIS licenses, as described in *Initial activation of the system, page 28* and *Adding additional fulfillments/licenses, page 28*.
This website can also be used to:

- view received (activated and not activated) licenses.
- create and maintain users.
- create and maintain (sub)dealers.

User rights are assigned to the following types of user during log in:

- **Admin user**: can modify user and dealer accounts; cannot access **Manage license** pages.
- **Logistics user**: can assign orders to a dealer; cannot access **Manage license, Manage users**, and **Manage dealers** pages.
- **Technician**: can activate, return, and repair fulfillments; cannot access **Manage users** and **Manage dealers** pages.

To access the website:

1. Enter: https://licensing.boschsecurity.com/StartPage.aspx in your web browser. The following page is displayed:

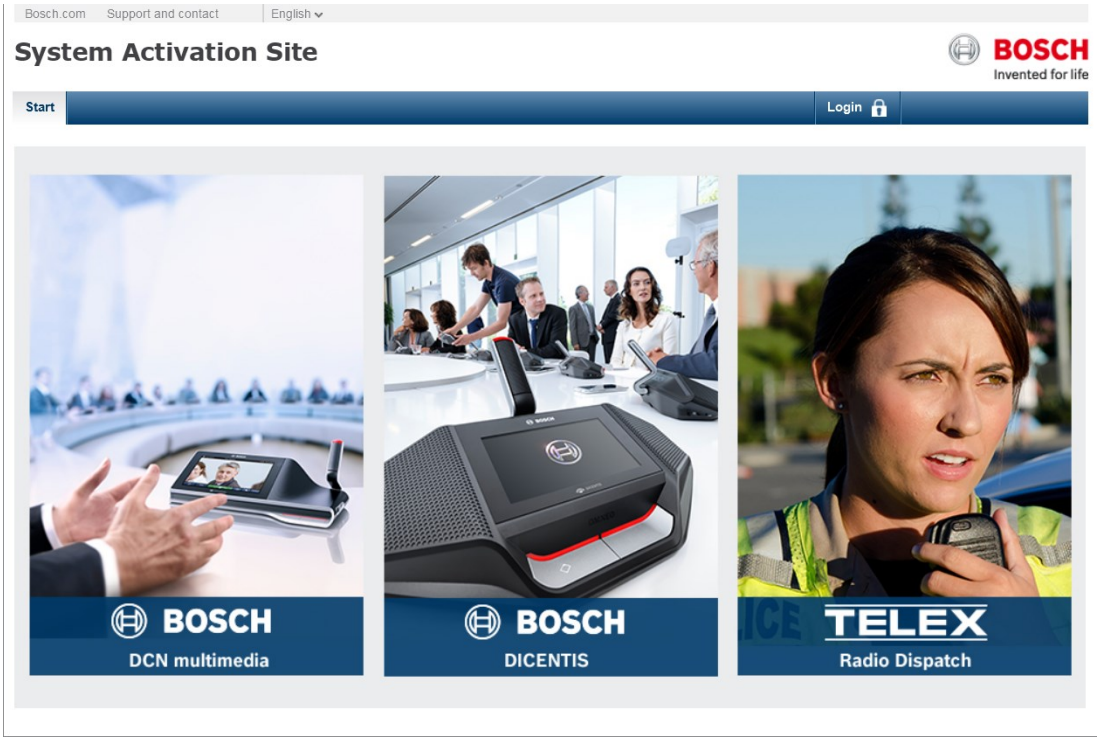


Figure 11.1: System Activation Site Login page

1. Use the drop-down list at the top left-side of the page to select the required language.
2. Click **Login** and enter your **User name** and **Password**.
3. Click the blue **Login** button. The **Overview** page is displayed.

Note: If you forgot your password, a new password can be requested by clicking **Login > Forgotten your password?**

11.1 Overview

After logging in, the **Overview** page is displayed by default. This page shows the activated and non-activated “activation IDs” delivered to your organization.

– Click the blue left/right arrows on the right side of the page to display the next or previous page
– Click the blue up/down arrows at the top of the columns to change the alphabetical sequence of the Sales orders.

Search for orders

Use the **Search for Orders** field to find an existing order. To do this:

1. In the **Enter the search text** field, enter the order number.
2. From the **Search For** drop-down list, select **Sales order**.
3. Click **Search**. The search results are displayed.

Sales order

Click one of the blue hyperlinks in the **Sales order** column to display the **Order details**.

– **Order number**: The order number from the **Sales order** column (read only).
– **Create date**: The date the order was created (read only).
– **Assign order**: Use this feature to assign a license to a dealer in your organization (the organization has to be created before you can do this). Technicians can only activate licenses that have been assigned to their organization. Licenses are assigned to organizations to prevent them from being lost:
  – **Select Dealer**: Selects the dealer that you want to assign the order to.
  – **Dealer ID**: Unique identification number for the dealer (read only).
  – **Assign order** button: Assigns the order to the selected dealer (requires Logistics user rights).

Dealer

The name of the dealer.

Location

Click one of the blue hyperlinks to display the **System details**. A system can contain multiple Sales orders (licenses can be added as required).

The following information, amongst others, is displayed: location of the installed system, address, email address, activation date of the system software, and expiration date of the Software Maintenance Agreement.

Customer

The name of the customer.

City

The city where the customer is located.

Activation ID

The activation ID for activating the license.

Activation date

The date the license was activated.

11.2 Manage license

Precondition
– To use this page, the logged in user must have the user right “Technician”.

Use the Manage license page to activate, return, and repair fulfillments.

Browse
Use this button to select the required **xml** file.

Process
Use this button to process the selected **xml** file.

11.3 Manage users

Precondition
– To use this page, the logged in user must have the user right “Admin user”.

Use the **Manage users** page to create user accounts for technicians so they can access the website and activate licenses.

Create Technician
Click this button to create a new technician. Complete the mandatory fields for: First name, Last name, User name, and Email address. Once completed, this information is displayed in the columns on the **Manage users** page, and the check box in the column for **Technician** rights is selected.

Edit
Click this hyperlink to change the First name, Last name, and Email address of the technician. Click **Save** or **Cancel** to store or discard the settings.

Delete
Click this hyperlink to delete the selected technician. A dialog box will be displayed asking you to confirm this action.

11.4 Manage dealers

Precondition
– To use this page, the logged in user must have the user right “Admin user”.

Use the **Manage** dealers page to view and manage the information of (sub)dealers. This page is normally used by a Bosch Dealer to assign orders to (sub)dealers.

Create dealer
Click this button to create sub-organizations that can have activation IDs (Sales orders) assigned to them. These sub-organizations can only see:
– the activation IDs that have been assigned to them.
– the systems they have installed.
Orders are assigned to (sub)dealers on the Overview page. See Overview.
Complete the mandatory fields for: Dealer ID, Dealer name, First name, Last name, User name, and Email. Once completed, the Dealer ID, Dealer name, Admin user name, and Admin email address are displayed in the columns on the **Manage dealers** page.

Dealer ID
Click one of the blue hyperlinks in the **Dealer ID** column to change the Dealer name or the Admin details. Click **Save** or **Back** to store the settings or return to the **Manage dealers** page.

12 Hints and Tips

This Chapter gives information on:

12.1 Adding additional keyboards to a device

If required, additional non-European keyboards, e.g. a Chinese or Korean keyboard, can be added to a DICENTIS device.

To have an Android keyboard in a different language, you first have to upload the APK for that keyboard and then follow the setup procedure below. For information on uploading APKs, refer to *Adding third-party application to a device, page 25*.

Two examples of APKs are:

– com.google.android.inputmethod.korean-0.91.apk, korean language, 877 KB
– com.google.android.inputmethod.pinyin-3.2.1.65352638.apk, chinese language, 12.103 KB

Setup procedure

On the DICENTIS device:

1. Press the home icon, and then press **WWW** to open the Internet browser.
2. Press the address bar in the browser to display the keyboard.
3. Press the 'slider icon' in the bottom right corner of the keyboard.
4. Press **input languages**.
5. Uncheck **Use system language**.
6. Select a minimum of 2 languages from the list.
7. Go to the browser, and press the address bar to display the keyboard.
8. Press the 'keyboard icon' in the 'android bottom bar' next to the Bosch logo.
9. Press **Set up input methods**.
10. Check the other keyboards.
11. Go to the browser, and press the address bar to display the keyboard.
12. Press the 'keyboard icon' in the 'android bottom bar' next to the Bosch logo.
13. Select the keyboard you want to use.

Notice!

Additional keyboards have to be individually configured for each DCNM-MMD2 device.

Notice!
Additional keyboards will have to be reconfigured after a firmware upgrade.

12.2 Attaching a (remote) SQL server to DICENTIS

Needs
Needed files and information:
- A text editor such as notepad / Notepad++ / ... to change the files.
- The data connection configuration file **Bosch.Dcnm.Service.dll.config** located in the installation folder of DICENTIS (commonly **C:\Program Files\Bosch\DICENTIS**).
- The name of the SQL server to use (default: **.SQLEXPRESS**). This SQL server must be reachable by the DICENTIS PC.
- The connection credentials to connect to the DICENTIS database. This can be either windows authentication or SQL authentication.
- The name of the DICENTIS database (default: **DcnmDatabase**).

Formatting the connection string
1. To see the format of the connection string, use a text editor to open the configuration file **Bosch.Dcnm.Service.dll.config**.
2. Search in the configuration file for the connection string setting **DbConnectionString**. The default content looks like this:

```
<Bosch.Dcnm.Services.Properties.Settings>
      <setting name="DbConnectionString" serializeAs="String">
        <value>metadata=res://*; provider=System.Data.SqlClient;provider connection
string="Data Source=.SQLEXPRESS;Initial Catalog=DcnmDatabase;Integrated Security=True;
MultipleActiveResultSets=True";</value>
      </setting>
    </Bosch.Dcnm.Services.Properties.Settings>
```

The value content holds the connection string, which holds the following information (separated by semicolons).
1. metadata=res://*;
2. provider=System.Data.SqlClient;
3. provider connection string="Data Source=.**SQLEXPRESS**;Initial Catalog=**DcnmDatabase**;Integrated Security=True; MultipleActiveResultSets=True";

The third part holds the SQL connection string and defines the SQL server and the database. The shown SQL connection string is based on the Windows authentication format and refers to the local SQL server named **SQLEXPRESS**. The database is named **DcnmDatabase**.

Windows authentication format
The SQL connection string is based on Windows authentication and has the following format. In the format the elements to change are marked:
Data Source =**.SQLEXPRESS**;Initial Catalog=**DcnmDatabase**;Integrated Security=True; MultipleActiveResultSets=True
The first mark defines the SQL server. The second mark defines the database name to use.

SQL authentication format

The SQL connection string based on SQL authentication has the following format. In the format the elements to change are marked:

Data Source=**.SQLEXPRESS**;Initial Catalog=**DcnmDatabase**;User ID=**DbUser**;Password=**DbPassword**;MultipleActiveResultSets=True

- The first mark defines the SQL server.
- The second mark defines the database name to use.
- The third mark defines the SQL user name to use for the connection.
- The fourth mark defines the SQL user password for the connection.
  Note: This password is not encrypted.

SQL server reference

The server has to be referenced in the connection string. In the above examples, the SQL server is defined as **.SQLEXPRESS**. Actually the reference consists of two parts:

- The machine name where the SQL server is positioned, and
- The name of the SQL server instance.

The machine part is defined with two backslashes, for example:

MySQLMachine

The name of the machine when the local machine is used. The machine name may be replaced by a dot (.). The SQL server instance is the name of the SQL as given during installation, for example:

SQLEXPRESS

This name is added after the machine reference and is separated by a backslash. During installation you can also choose the default instance. In that case the instance name may be omitted and only the machine name has to be provided.

Creating the database on the SQL server

The database can only be created by using Windows Authentication (the database creation tool currently does not support SQL authentication). For best support we advise to create the database on the target machine using administrator rights.

The console tool **DcnmDatabaseConsole.exe** is used to create the database. When you need to copy the tool, the following files have to be copied:

- DcnmDatabaseConsole.exe
- DcnmDatabaseConsole.exe.config
- Bosch.Interfaces.dll

For help on the command-line syntax and the available options, execute the command with the **-?** option.

Remote creation

For the remote creation, the server and database options have to be passed, such as:

DcnmDatabaseConsole.exe –s SQL-Server –d Database

- Optionally, the command can be added with the **–n** option to force the creation of a new database (the old database will be dropped).
- When the **-n** option is omitted, the presence of the database is checked, backed up, and upgraded when needed.

Creation on the target machine

To create the database on the target machine, the files mentioned above have to be copied to the target machine. The command options to use are the same, except that no machine part is required. The machine part can be replaced with the dot.

Windows Authentication example

This example shows how to use windows authentication to connect to the remote SQL server named **SQLENT1** on machine **SQLSRV**.

The database to use for the system is **MainConfHall**. The changes to the configuration will be (the changed elements are underlined):

```
<Bosch.Dcnm.Services.Properties.Settings>
      <setting name="DbConnectionString" serializeAs="String">
        <value>metadata=res://*; provider=System.Data.SqlClient;provider
connection string="Data Source=\\SQLSRV\SQLENT1;Initial
Catalog=MainConfHall;Integrated Security=True;
MultipleActiveResultSets=True";</value>
      </setting>
    </Bosch.Dcnm.Services.Properties.Settings>
```

Database creation:

Remote:

```
DcnmDatabaseConsole -s \\SQLSRV\SQLENT1 -d MainConfHall -n
```

On target:

```
DcnmDatabaseConsole -s .\SQLENT1 -d MainConfHall -n
```

SQL authentication example

This example shows how to use SQL authentication to connect to the remote SQL server named **SQLENT2** on machine **SQLSRV**.

The user name and password to use are respectively: **DcnmUser** and **P@ssw0rd**. The database to use is **ConfHallE53**. The changes to the configuration will be (the changed elements are underlined):

```
<Bosch.Dcnm.Services.Properties.Settings>
      <setting name="DbConnectionString" serializeAs="String">
        <value>metadata=res://*; provider=System.Data.SqlClient;provider
connection string="Data Source=\\SQLSRV\SQLENT2;Initial
Catalog=ConfHallE53;User
ID=DcnUser;Password=P@ssw0rd;MultipleActiveResultSets=True";</value>
      </setting>
    </Bosch.Dcnm.Services.Properties.Settings>
```

Note: In this situation, the term Integrated Security=True is removed.

Database creation:

Remote:

```
DcnmDatabaseConsole -s \\SQLSRV\SQLENT2 -d ConfHallE53 -n
```

On target:

```
DcnmDatabaseConsole -s .\SQLENT2 -d ConfHallE53 -n
```

SQL authentication example to default instance
This example shows how to use SQL authentication to connect the default SQL server on machine **SQLSRV**. The example is the same as the previous version, except that the connection is to the default SQL server instant of a defined instance
The user name and password to use are respectively: **DcnmUser** and **P@ssw0rd**. The database to use is **ConfHallE53**. The changes to the configuration will be (the changed elements are underlined):

```
<Bosch.Dcnm.Services.Properties.Settings>
      <setting name="DbConnectionString" serializeAs="String">
        <value>metadata=res://*; provider=System.Data.SqlClient;provider
connection string="Data Source=\\SQLSRV\SQLENT2;Initial
Catalog=ConfHallE53;User
ID=DcnUser;Password=P@ssw0rd;MultipleActiveResultSets=True";</value>
      </setting>
    </Bosch.Dcnm.Services.Properties.Settings>
```

Note: In this situation, the term Integrated Security=True is removed.
Database creation:
Remote:

```
DcnmDatabaseConsole -s \\SQLSRV -d ConfHallE53 -n
```

On target:

```
DcnmDatabaseConsole -s . -d ConfHallE53 -n
```

12.3 Changing NetTime options

NetTime is used to synchronize timers used in the DICENTIS Conference System. If the DICENTIS Conference System is used in a corporate environment, you might have to change the NetTime options.
To change these options:

1. Right click the **NetworkTime** icon in the notify area, and select **Properties** -> **Settings**...
2. Enter the correct Hostname or IP Address of the Time server in your environment. Normally the time server is the same server as the DHCP server. Consult your local IT department for more information.
3. Click **OK**.
4. Click **stop**, and then click **start** to activate the new settings.

NOTE: Remember to change the service Windows Time to **Automatic** after uninstalling NetTime.

12.4 Configuring secretary's PC for use in other VLAN as DICENTIS server

Background information
The secretary (or clerk) should use the Meeting Application on his/her PC to prepare meetings. If the secretary's PC is in a different VLAN than the DICENTIS server, the Meeting Application cannot find the DICENTIS server. This is because the DICENTIS devices and the Meeting Application use the DNS-SD protocol, which does not work between different VLANs. If necessary, the technician should use the following procedure to configure the Meeting Application on the secretary's PC so that it can communicate with the DICENTIS server.

Procedure
At the secretary's PC:

1. Ping the DICENTIS server:
   - Click the **Start** logo.
   - Type **command** in the search field, and then choose **Command Prompt** under **Programs**.
   - Type **ping** [hostname of the DICENTIS server].
   - Press **Enter** to ping the DICENTIS server.
2. If you are unable to ping the DICENTIS server, you might require assistance from your local IT department. If you still cannot ping the DICENTIS server, the IP address can be used instead. However, this is not preferred because IP-addresses may change.
3. Create a shortcut of the Meeting application on the desktop (use the **Bosch.Dcnm.UserInterfaces.MeetingManager.exe** file from the **C:Program Files (x86)BoschDICENTIS directory**).
4. Right-click on the shortcut, and select **Properties**.
5. In the shortcut tab, update the target, by adding the server that the PC needs to connect to:
   - **Usage**: **Bosch.Dcnm.Userinterfaces.MeetingManager.exe** [/server 'servername'] /server Optional parameter with the hostname or IP address of the DCNM server
   - **Example**: **Bosch.Dcnm.Userinterfaces.MeetingManager.exe /server COMPUTERNAME.network.com**
6. Double-click the shortcut. You will be able to connect to the remote server from the Meeting application.

Additional information

- **/window**: Starts the meeting manager in a window (instead of full screen).
- **/?**: Displays a message box with the description of the command line arguments.

12.5 Disabling control encryption

Control encryption can be disabled using the following procedure.

1. Edit the following file: **Bosch.Dcnm.Services.DeviceService.Main.exe.config** located in: **C:\Program Files\Bosch\DICENTIS**
2. Change:

```
<add key="OcpControlSecurityForced" value="true"/>
```

Into:

```
<add key="OcpControlSecurityForced" value="false"/>
```

1. Restart services using the server console

Note: To enable control encryption; set the value to true again and restart the services.

12.6 Downgrading DICENTIS software to a previous version

Uninstalling DICENTIS software and installing a previous version will not result in a working system. Use the following procedure to downgrade your DICENTIS system from the current version to a previous version:

1. From the Windows **Start** icon, select **Control Panel** > **Programs and Features**.
2. Manually un-install the following programs:
   - ARNI Configuration Tool.
   - Bosch DICENTIS.
   - Bosch DNS-SD Service, this un-install signals for a reboot.
   - OMNEO ARNI Firmware.
   - OMNEO Firmware Upload Tool.
3. Reboot the PC.
4. Stop the SQL server (SQLEXPRESS) via **Services**.
5. Delete the old database.
6. Restore the backup database
   - Select the folder **System Databases**.
   - Start context menu (right mouse click) **Restore Database...**
   - Select the radio button **From Device**, and then press the button **...**, which opens the **Specify backup** window.
   - At the **Specify backup** window, press **Add**.
   - Browse to the directory: **%ProgramFiles%\Microsoft SQLServer\MSSQL10_50.SQLEXPRESS\MSSQL\DATA\DcnmBackup**
   - Select the **DcnmBackup_v1.00.bak** file, and then press **OK** to go back to the **Restore Database** screen.
   - At **To database**, select the database **MmcnDatabase** from the combobox.
7. Install the previous DICENTIS, as described in *Installing the DICENTIS software suite, page 24*.
   - Select the folder **System Databases**.
   - Start context menu (right mouse click) **Restore Database...**
   - Select the radio button **From Device**, and then press the button **...**, which opens the **Specify backup** window.
   - At the **Specify backup** window, press **Add**.
   - Browse to the directory: **%ProgramFiles%\Microsoft SQLServer\MSSQL10_50.SQLEXPRESS\MSSQL\DATA\DcnmBackup**

- Select the **DcnmBackup_v1.00.bak** file, and then press **OK** to go back to the **Restore Database** screen.
- At **To database**, select the database **MmcnDatabase** from the combobox.
- Check the **restore** checkbox.
- Press **OK**.
- If the restore is successful, the message **Restore is successful** is displayed.

See also

- *Creating a clean database, page 92*

12.7 Creating a clean database

1. Stop **DICENTIS services** using the **DICENTIS Server Console**.
2. Open a command prompt in **Administrator mode**.
3. Go to: **C:\Program Files\Bosch\DICENTIS**.
4. Run **DcnmDatabaseConsole.exe -n –y**.
5. Reboot the DICENTIS server.

12.8 Importing an existing database

1. Stop **DICENTIS services** using the **DICENTIS Server Console**.
2. Stop the **SQL server (SQLEXPRESS)** via Services.
3. Overwrite the original DcnmDatabase_log.LDF and DcnmDatabase.mdf files in **C:\Program Files\Microsoft SQL Server\MSSQL10_50.SQLEXPRESS\MSSQL\DATA** with the database files you want to use.
4. Start the **SQL server (SQLEXPRESS)** via Services.
5. Open a command prompt in **Administrator mode**.
6. Go to: **C:\Program Files\Bosch\DICENTIS**.
7. To upgrade the database, run **DcnmDatabaseConsole.exe -y**.
8. Reboot the DICENTIS server.

12.9 Installing the image server on a different computer

For reasons of improving performance and/or saving space, you can install the DICENTIS image server on a different computer:

1. Open the DVD.
2. Locate the **DccnmApi.msi** and **DccnmImageServer.msi.**
3. Login to the computer on which you want to install the image server.
4. First install the **DccnmApi.msi** and then install the **DccnmImageServer.msi**.
5. Make a note of the computer name or the IP address and port that is used by the image server.
6. The default is 31418.

To change the location of the image service:

1. Start the Meeting Application.
2. Navigate to **Configure > Rooms**.
3. Enter the url of the new image server in **Image Server url**.
4. Example: If the computer name is CITYCOUNCILIMAGESERVER and the port is 31418, enter the Uri as: **https://CITYCOUNCILIMAGESERVER:31418/**
5. Click the **Test image server connection** button to ensure that new DICENTISimage server is valid.
6. Click the **Apply** button to save the new image server url.

12.10 Making a copy of your database

1. Stop **DICENTIS services** using the **DICENTIS Server Console**.
2. Stop the **SQL server (SQLEXPRESS)** via Services.
3. Go to: **C:\Program Files\Microsoft SQL Server\MSSQL10_50.SQLEXPRESS\MSSQL \DATA**
4. Copy **DcnmDatabase_log.LDF** and **DcnmDatabase.mdf** to your backup location.
5. Reboot the DICENTIS server.

12.11 Recovering devices from fail-safe mode

Although the utmost has been done to safeguard the availability of the system, a situation can occur where a DICENTIS device enters a fail-safe mode which requires a reload of the firmware. To reload the firmware:

1. Power up the device.
2. Start the **Firmware Upload Tool**. After some time the Firmware Upload Tool shows the **devices in failsafe mode** window with the id of the defective device displayed.
3. Wait until the device appears in its specific tab of the Firmware Upload Tool (DCNM-APS / DCNM-APS2, DCNM-PS2 or DCNM-MMD2 / DICENTIS Discussion device).
4. Close the **Firmware Upload Tool**. The device is now fully operational again.

12.12 Replacing a defective device

A defective device can be easily replaced, without reconfiguring. To do so:

1. Replace the defective device.
2. Upgrade the replacement device with the correct firmware, if necessary.
3. Select: **Configure** > **Seats and Devices** > **Seat Assignment**.
4. Unassign the defective device from the seat by using the **Unassign Devices from Seat** button. Record the number/name of the defective device (see sticker on base of device). **Tip**: Use your mobile phone to take a picture of the sticker.
5. When **Automatic seat assignment** is enabled, the replacement device must first be unassigned from its current seat before it can be assigned to the correct seat. Unassign the replacement device from the seat by using the **Unassign Devices from Seat** button.
6. Assign the replacement device to the correct seat using the **Assign Device to Seat** button.
7. Remove the empty seat with the **Delete empty seats** button.

12.13 Uploading and accessing files (documents, pictures, and presentations)

Background information

During a meeting, participants can open and view files (i.e.: documents, pictures, and presentations) by clicking a blue **More info** hyperlink on the multimedia devices (DCNM-MMD2 and DCNM-DE only). The **More info** hyperlink is displayed for:

- each meeting,
- each agenda item, and
- each voting round.

For participants to be able to use this hyperlink:

- the documents have to be uploaded to either:
  - the customer's Content Management Systems (CMS), or
  - one or more folders on the **DcnmMeetingDocuments** website on the DICENTIS server.

- a URL (link) has to be entered in the Prepare pages for:
  - each meeting (see *Meeting details, page 47*),
  - each agenda item (see *Topic details, page 50*), and
  - each voting round (see *Voting round details, page 51*).

Document folders can be created as required; for example, separate document folders can be created for “Meeting”, “Agenda”, and “Voting” for storing relevant documents, or single “Meeting” folders can be created for storing all documents.
The advantage of using separate folders is that only the relevant documents will be displayed when one of the **More info** hyperlinks is pressed, i.e. only documents relevant to voting will be displayed when the **More info** hyperlink for voting is pressed. The disadvantage, however, is that individual hyperlinks have to be entered in the prepare pages for each folder.
By default DICENTIS (version 1.5 and later) installs the Internet Information Server and creates a **meetingdocuments** directory and simple website to enable document browsing. The meeting documents directory is installed on the drive that has the most space available on the server.
Note: This is not necessarily the C drive.

Technician tasks
Set up the **meetingdocuments** directory:
1. Use the Internet Information Services (IIS) Manager and Explore (inetmgr) to determine on which drive the **meetingdocuments** directory is installed.
2. Share the **meetingdocuments** directory, so that the secretary can access it.
3. Create a shortcut to the **meetingdocuments** directory on the secretary’s computer.

Create one or more folders on the DcnmMeetingDocuments website:
1. In the **meetingdocuments** directory, create a folder for each meeting; for example, **meeting_1**, **meeting_2, meeting_3.** These folders are used to store the documents that are displayed when the **More info** hyperlink is pressed.
2. Optional: In each of the meeting folders, create folders for each agenda item and each voting round; for example, **agenda_1**, **agenda_2**, and **voting round_1**, **voting round_2**.

Secretary or clerk tasks
Upload files to the **meetingdocuments** directory:
1. Click the shortcut to the **meetingdocuments** directory, or use Windows Explorer to browse to (**Drive):\inetpub\wwwroot\DcnmMeetingDocuments**.
2. Make sure the technician has created the appropriate folders, as described in **Technician tasks**. See previous section.
3. Upload files (i.e.: documents, pictures, and presentations) to the appropriate folder(s), as required.

Enter URLs (links) for the meeting and agenda items:
- Use the following format to create URLs (links) in the meeting and agenda items:
  http://<IP-address of the DICENTIS server PC>:31415/Default.aspx
- If each meeting has its own directory with documents, the URLs (links) should have the following format:
  http://<IP-address of the DICENTIS server PC>:31415/Default.aspx?meeting=<name of the directory used in this meeting>

– If each agenda has its own directory with documents, the URLs (links) should have the following format:
http://<IP-address of the DICENTIS server PC>:31415/Default.aspx?meeting=<name of the directory used in this meeting>&agenda=<name of the directory which has the documents used for this agenda item>
Refer to:
  – *Meeting details, page 47*
  – *Topic details, page 50*
  – *Voting round details, page 51*

Check URLs (links)

1. Activate each meeting, and check that URLs (links) to the meeting documents are displayed when the **More info** hyperlink is pressed.
2. Optional: Also do this for each agenda item and each voting round of a meeting.

12.14 Configuring the date and time format of the DICENTIS Multimedia device

The DICENTIS Multimedia devices (DCNM-MMD and DCNM-MMD2) are using the following date and time settings from the server PC:

– Time-zone
– Daylight saving time settings
– Time format (Short time)
– Date format (Short date)

To make this work properly you need to execute the following steps:

1. Configure the date and time format on the server PC
   – Open **Control Panel**.
   – Select **Change date, time, or number formats**.
   – On the **Formats** tab-page (of Region) configure the **Short date** and **Short time**.
   You can also make your own date and time format if you like.
   Note: if you make it too long it will not fit the device.
   – Select **Apply**.
2. Configure the server that the settings are part of the administrative settings.
   – Open the tab page **Administrative** (of Region).
   – Select the button **Copy settings...**
   – Check the box.
   – Welcome screen and systems accounts.
   – Select **OK.**
3. Wait a minute and see that the format on the DCNM-MMD is updated.

13 Troubleshooting

For troubleshooting, also refer to the DICENTIS Hardware Installation manual, section “Installation Test”.
Refer to the product related information on: www.boschsecurity.com.

13.1 Customer service

If a fault cannot be resolved, please contact your supplier or system integrator, or go directly to your Bosch representative.

13.2 Known issues

Refer to the following sections for known issues and their solutions:
- *Licensing, page 96*
- *Releasing Dual License, page 96*
- *Network, page 96*
- *Software and hardware installation, page 98*
- *Meeting application and DICENTIS device, page 99*
- *Camera control, page 100*

13.2.1 Licensing

Issue:
Activating a DICENTIS license when using non-standard ANSI characters can result in the following error message: **Request xml file is tampered. Please submit valid xml**.
Version: 1.2.
Solution:
Create a new Request.xml (activate offline) using standard ANSI characters.

13.2.2 Releasing Dual License

Issue:
If a device with a dual license is broken, the license will not be automatically returned.
Solution:
Restart the services on the server console, the licenses will be recalculated and the dual license will be released.

13.2.3 Network

Issue:
Delay of audio in a multi-subnet DICENTIS Conference System using Cisco c3560x with firmware 15.0.1 SE3 c3560e-universalk9-mz.150-1.SE3.bin
Solution:
Use the tested and supported firmware versions:
- 12.2.55 SE5 (c3560e-universalk9-mz.122-55.SE5.bin)
- 15.2.2E (c3560e-universalk9-mz.152-2.E.bin)

Issue:
Connecting, out of the box, DICENTIS devices to a network switch can cause connection problems because the DICENTIS devices have Rapid Spanning Tree Protocol (RSTP) enabled by default and not all network switches support this protocol.
Solution:

Upgrade the DICENTIS devices with only DCNM-APS / DCNM-APS2 and PC connected.

Issue:
Client PC does not connect to DICENTIS server when it is not in the same subnet.
Solution:
Define and configure the system in such a way that all Client PC's are in the same subnet as the DICENTIS server.

Issue:
When using managed switches with IGMP enabled, this issue can result in loss of audio and other failures.
Solution:
In your switch, set igmp-last-member-query-count=7, igmp-last-member-query-interval=10000 and enable the IGMP querier to a repetition rate of 60 seconds. If your switch does not implement an IGMP querier, you can use the IGMP querier in the ARNI-E.

13.2.4 Software and hardware installation

Issue:
Upgrade of DICENTIS on Windows 2012 fails.
Solution:
Run the installation process again.

Issue:
Failsafe devices are not automatically restored by the FWUT if they are not in the same subnet as the FWUT, e.g. a multi-subnet network with an ARNI.
Solution:
Disconnect all devices that are in failsafe mode and connect them to a system with one subnet and without an ARNI. The failsafe mechanism is based on multicast DNS, which causes this technical constraint. Failsafe works with multicast DNS; this is a technical constraint.
Note: Do not connect more than 10 failsafe devices at the same time.

Issue:
Upgrading DICENTIS devices (DCNM-MMD) that have factory firmware prior to 1.2 does not work in a system with an ARNI, because the Firmware Upload Tool does not list the DCNM-MMDs.
Solution:
Upgrade the DICENTIS devices with the ARNI disconnected.
Note: Limit the system size to a maximum of 100 DCNM-MMDs while upgrading.

Issue:
DICENTIS not installed because of failure: **Failed to verify signature of payload: SQLServer2008R2**.
Solution:
The PC does not have the latest Microsoft Windows update. Install the latest Microsoft Windows updates on the PC before starting the DICENTIS setup.

Issue:
The system stops working after a new user is created at the PC running the DICENTIS software services.
Solution:
Reboot the server PC.

13.2.5 Meeting application and DICENTIS device

Issue:
The DICENTIS Server console shows a green tick mark notifying that all services are started correctly and the system is properly licensed, but:
– the DCNM-APS / DCNM-APS2 shows a green blinking LED.
– the DCNM-MMD2s / DCNM-DEs show a screen with the ethernet links.
– the Meeting Application remains in splash screen.

Solution:
The SQL server does not see the DICENTIS databases, because you manually un-installed Microsoft SQL server before installing DICENTIS.
1. Stop the DICENTIS services using the DICENTIS Server Console.
2. Delete all Dcnm*.* files in **C:\Program Files\Microsoft SQL Server \MSSQL10_50.SQLEXPRESS\MSSQL\DATA**
3. Open a command prompt with elevated rights (Run as administrator).
4. Go to C**:\Program Files\Bosch\DICENTIS**
5. Run the command: **DcnmDatabaseConsole.exe –y –n**
6. Start the DICENTIS services using the DICENTIS Server Console.

Issue:
When using the home button in the browser and the **Back To Active** button (large green button), to return to the active meeting after browsing the internet, there is a delay of about 4 seconds.

Solution:
This is standard Android behavior.
When the back button in the browser is used, and then the **Back To Active** button, there is no delay.

Issue:
The Meeting application shows disabled buttons or missing buttons. The DICENTIS devices show the disconnected screen.

Solution:
Disable the sleep mode of the server PC, and then reboot the server.

Issue:
The Meeting application and the DICENTIS devices show a different time.

Solution:
Enable daylight saving on the PC running the Meeting application.

13.2.6 Camera control

Issue:

Camera pre-positions cannot be set at the seats.

Solution:

1. Close the Meeting application.
2. Remove the file: **C:\Users\«servername»\AppData\Local\Bosch \Bosch.Mmcn.UserInterfaces_...**
3. Restart the Meeting application.

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