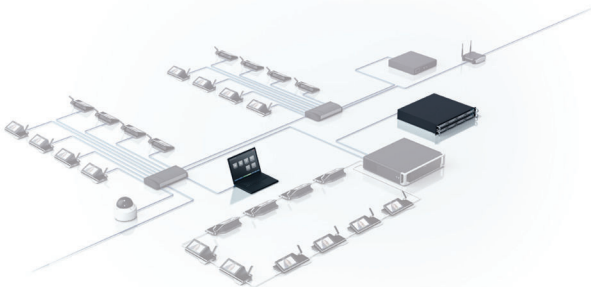


DCN multimedia System Server Software

www.boschsecurity.com



BOSCH
Invented for life



- ▶ Automatic device discovery
- ▶ Control up-to 100 multimedia devices
- ▶ Client server solution
- ▶ No user interaction needed to run the system
- ▶ Automatic seat creation and assignment

The DCN multimedia System Software is used as a platform that controls the entire DCN multimedia system. Basic functions are included where others can be added depending on the functionality required.

System overview

In addition to the Bosch ST standard terms and conditions of sales, the Bosch DCN multimedia System Software is a great option to benefit from the Bosch maintenance service, keeping your DCN multimedia System Software always up-to-date. Refer to the product related information on www.boschsecurity.com.

Functions

DCN multimedia System Software is built as a server client solution and consists out of two main components: The Server Software and the Meeting Application.

Server Software

The Server Software is a set of Windows services. The individual services do not have user interfaces and are running at the background to control and monitor all the DCN multimedia components and optionally the Meeting Application(s) running on client PCs. To inform the user, a user interface is present for system

state and diagnostics. Next to the services, it contains a license activation module. This module is needed to activate the license of the complete DCN multimedia conference system.

Once, the Server Software has been configured by means of the Meeting Application, the Server Software can run autonomic without any user intervention.

Meeting Application

The Meeting Application acts as a PC user interface, to configure the system and to manage and prepare meetings. This application is, next to the Multimedia Device, the user interface of the system. To prepare and manage a meeting from the Meeting Application the DCN multimedia Meeting Preparation and Management software module is needed.

The software server and meeting application(s) can, but not necessarily need to, run on separate computers. This allows the possibility for assigning functionality to different users and/or PCs – for instance, let one or more users configure the system (configure) while others are registering persons and assign them to become participants (prepare meeting) and others can actually manage the meeting (manage meeting) on a separate PC.

The system software contains the following basic functionally:

Configuration from the Meeting application:

- Devices are automatically discovered and can be automatic or manual assigned to a seat.
- Setup chairperson seat.
- User management.
- Setup volumes of multimedia loudspeakers and sound reinforcement output on DCNM-APS.
- Enable/disable Acoustic feedback suppression.
- 5-band parametric room equalization.
- User definable priority and summon tones.

Functions which can be accessed from a multimedia device which is setup as a chairperson seat:

- Microphone modes:
 - Open mode automatic, Open mode manual managed, Override mode.
- Number of open microphones from 1 to 25.
- Number of waiting speaker from 0 to 200.
- Number of responders from 1 to 100.
- Enable/disable automatic microphone off after 30 seconds.
- Enable/disable priority tone.
- Master volume control.
- Initiate a summon chime.

The PC running the software server needs to be activated with a license before it can be used. When DCNM-LSYS DCN multimedia system software is ordered, it will be sent as an e-mail. The e-mail contains all information how to activate the system. In-case the PC running the software server needs to be replaced; an easy-to-use solution is in place to activate the replacing PC without the need to order new software. Contact your Bosch representative for this, if required.

Parts included

Quantity	Components
1	E-mail with activation information.

Technical specifications**Technical**

Single PC system running server software and meeting application:	<ul style="list-style-type: none"> • Windows 7 home premium 64 bits: • Processor 4 cores 2.4 GHZ. • 8 GByte RAM. • 500 GB free disk space. • 1 GB Ethernet card.
PC running the server software in a multi-PC system:	<ul style="list-style-type: none"> • Windows 7 professional 64 bits: • Processor 4 cores, 2.4 GHZ. • 8 GByte RAM. • 500 GB free disk space. • 1 GB Ethernet card.
PC running the meeting application only:	<ul style="list-style-type: none"> • Windows 7 home premium 64 bits: • Processor 4 cores, 2.4 GHZ. • 8 GByte RAM.

- 500 GB free disk space.
- 1 GB Ethernet card.

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 channels, 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.
- (Optional) (Rapid) Spanning Tree support in case redundant networks are used.
- (Optional) SNMPv3 support for switch supervision purposes.

The following table shows recommended switches to use with OMNEO. These managed switches may offer support for the optional requirements as stated above.

Managed switches	IGMP Snooping	RSTP (Y/N)	SNMPv3 (Y/N)
HP Networking E2520 series	v1, v2, v3	Y	Y
HP Networking V1900 series	Y[2]	Y	Y
HP Networking V1910 series	Y3	Y	Y
Netgear GS108T / Netgear GS108Tv2	v1, v2	Y	Y
Cisco SG 300 series	v1, v2, v3	Y	Y
Cisco SG 200 series	v1, v2	Y	N
Cisco ESW 500 series	v1, v2	Y	Y
Cisco SLM2000 series	v1, v2	N	N
D-Link DGS 1210 series	v1, v2	Y	Y

The price range for these switches varies depending on the number of ports the switch may have. More expensive switches are also available, but have not been taken into consideration.

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.

The following table contains routers or router families (all of which are actually 'layer 3 switches') that are recommended to be used in OMNEO systems:

Layer 3 switches (or switch series)	Remarks
Cisco 3560-X series	Requires IP services feature set
HP 3500 yl series	Requires Premium License
HP 3800 series	-
HP 4800 series	-
HP 5500-EI series	-
Netgear GSM7328S-200	-
Netgear GSM7352S-200	-

Ordering information

DCN multimedia System Server Software

DCN multimedia System Software controls the entire DCN multimedia system. Other software modules can be added to extend functionality. Configuration can be done using the Meeting Application.

Order number **DCNM-LSYS**

Software Options

DCN multimedia Meeting Prep & Management

DCN multimedia Meeting Preparation and Management software module gives the ability to prepare and manage meetings using the meeting application. Can only be used in combination with DCNM-LSYS.

Order number **DCNM-LMPM**

DCN multimedia Discussion Management

DCN multimedia Discussion Management gives the ability to manage additional discussion options from the meeting application and multimedia device. Can only be used in combination with DCNM-LSYS.

Order number **DCNM-LDM**

DCN multimedia Participant Database

DCN multimedia Participant Database gives the ability to define participant's names and assign participants to seats. Can only be used in combination with DCNM-LSYS and DCNM-LMPM.

Order number **DCNM-LPD**

DCN multimedia Media Sharing

DCN multimedia Media Sharing gives the ability to use share the display of an remote presentation computer to all Multimedia Devices. Can only be used in combination with DCNM-LSYS.

Order number **DCNM-LMS**

DCN multimedia Camera Control

DCN multimedia Camera Control gives the ability to use Onvif compliant camera in the DCN multimedia system. Can only be used in combination with DCNM-LSYS.

Order number **DCNM-LCC**

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