

KVM Add-On

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Value adding solutions for your KVM an IT applications

DevCon-Center 7.1



Leading the way in digital KVM



Leading the Way in digital KVM

Guntermann & Drunck GmbH has been established in 1985 and is named after its founders. Over 25 years have since past, and we are now a leading manufacturer of digital and analog KVM switching systems.

As an owner-managed company we work with a broad range in both digital and analog KVM closely with the marketplace and make our decisions with and in the interests of our customers. It is our philosophy to meet our customers while making decisions, to accompany them in the process and ensure that they achieve their goals.

We can do this because as a medium sized company we have short communication paths and all core competencies are in house – from development through to production. This way we can even make the impossible possible at times. If it is thanks to the modularity of the products or by implementing a customised solution. We orient ourselves towards the needs of the customer – and not the other way round.

Organisations, service providers and companies of all sizes managing numerous computers, servers and other network devices trust the comprehensive advice and service provided by Guntermann & Drunck GmbH.

Thanks to these different fields of specialisation, the demands placed on the products are many and are manifold. Our products have to provide a long-life service, be secure, uncomplicated, user-friendly, understandable and adaptable.

The KVM add-on product DevCon-Center provides centralized, proactive monitoring and centralized configuration of network-capable G&D devices that have DevCon support.

Two interfaces connect the DevCon-Center to the network. Configuration, information and communication are carried out via integrated web interface.

A working system includes a DevCon-Center and the devices to be monitored.

If several network-capable products are deployed, the use of the DevCon-Center is recommended. The DevCon-Center appliance is in permanent contact with all devices over network. Using the DevCon-Center appliance, all connected G&D devices with the required support can be centrally configured, updated and monitored within one user interface provided so far they have DevCon Support.

Monitoring, configuration and updates can be carried out via one IP address. Any critical operational status can be recognised in advance and the system administrator can act accordingly. System availability and safety are increased for mission-critical applications such as live broadcast, Air or Ground Traffic Control etc.



above: DevCon-Center front view
below: DevCon-Center rear view

Highlights

Network / Communication / Safety

- Dual network connection
- Configuration via web interface
- Monitoring via SNMP and web interface
- Reports device statuses
- Logbook to capture, copy, export or print any information
- SSL-encryption for the communication with directory services
- Ident LED helps identify devices in complex installations
- Redundant power supply

Supported products

- DL-Vision
- DL-Mux
- DVICenter
- CATCenter NEO
- CompactCenter X2

Features

Web-Interface

- Displays all configuration data and additional information
- Password-protected
- Available in German and English

Configuration

- Configurable over integrated web interface
- Central configuration of all connected network-capable G&D devices over DevCon-Center
- Configurable options:
 - Authentication against directory services (LDAP, Active Directory, RADIUS, TACACS+)
 - Time sync via NTP server
 - Sends log messages to syslog server
 - SNMP monitoring through computers and network devices
 - Netfilter rules

Monitoring of system conditions

- Monitors temperature, voltage, transmission distance, computer status etc.
- Monitors DevCon-Center system status
- Monitors system statuses of connected network-capable G&D device
- Displays information in web interface
- Sends system statuses (SNMP Trap) or queries (SNMP GET)

Device

- Two network ports
- Requires no software installation
- Redundant power supply
- Available as desktop and 19" variant

System upgrade

- Update wizard over network (web interface)
- Distributes firmware update to connected devices

Variants

Design

- Available as desktop variant
- Including 19" rackmount set

Installation

Use a CAT-x cable (x= 5, 6, 7) to connect the network interface at the backside of the DevCon-Center to the network. The second interface can be used to link the DevCon-Center to a second network.

Establish a KVM service network to lower the amount of required IP addresses in the productive network. In this network, only the DevCon-Center communicates with the productive network.

System diagram

System diagram:

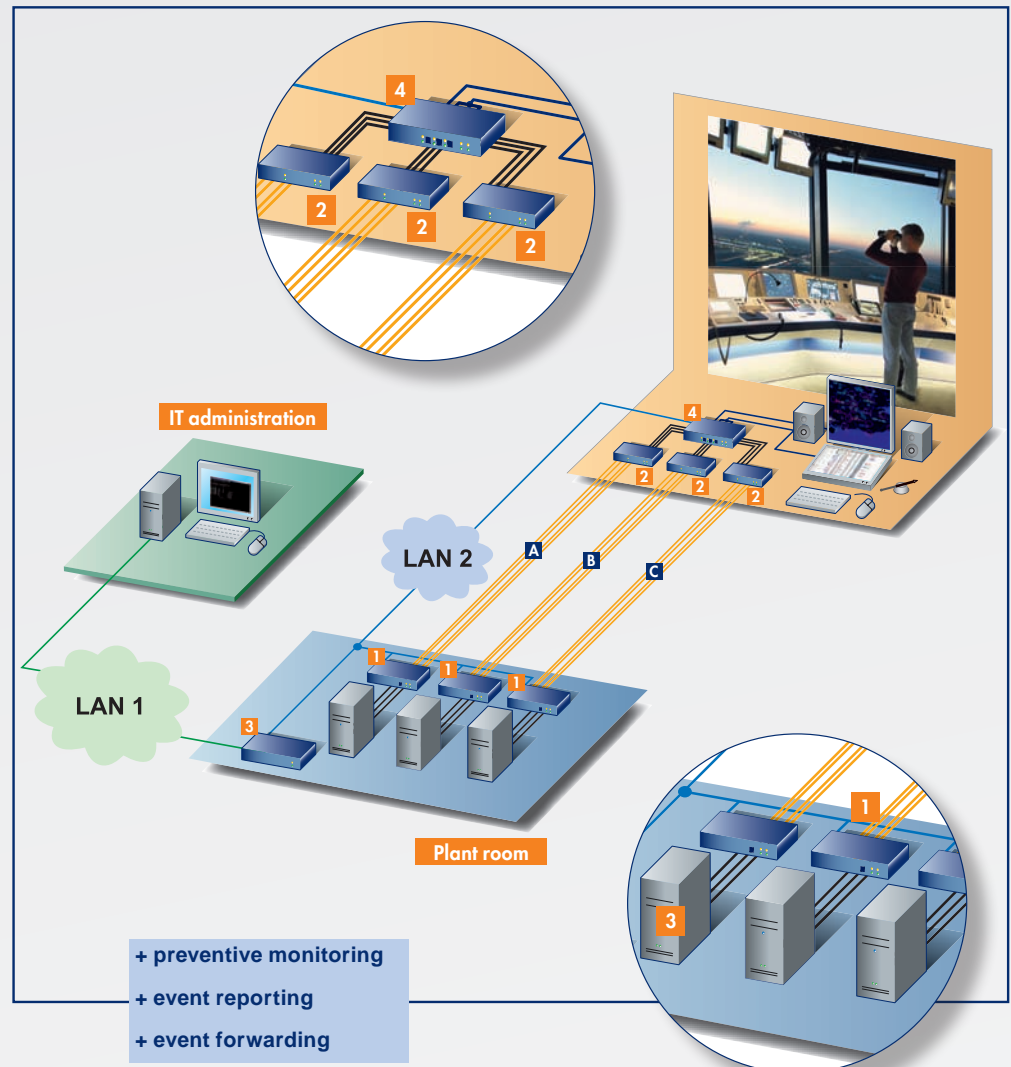
1 Computer module
DL-Vision-
MC2-AR-CPU

2 User module
DL-Vision-
MC2-AR-CON

3 Device monitoring
DevCon-Center

4 Switch
DL-MUX4-MC2

A Primary system
B Redundant system
C Fallback system



Example DevCon-Center

In air traffic control the removal of highly available computers is done by KVM Extenders [3 lines (1 x operative, 1 x redundant, 1 x fall-back) with switchover] and supervised via a DevCon-Center.

Besides improving the working environment for both controller and computer, a preventive monitoring- and event-reporting system is installed. Consequently, the responsible IT department is enabled either to gather informa-

tion about all connected networkable KVM devices at any time or to receive critical status messages automatically and upfront.

Depending on the event or any pre-defined threshold the DevCon dispatches a message to the IT administrator via network. Thus, active monitoring puts the administrator in a position to react even before an error arises.

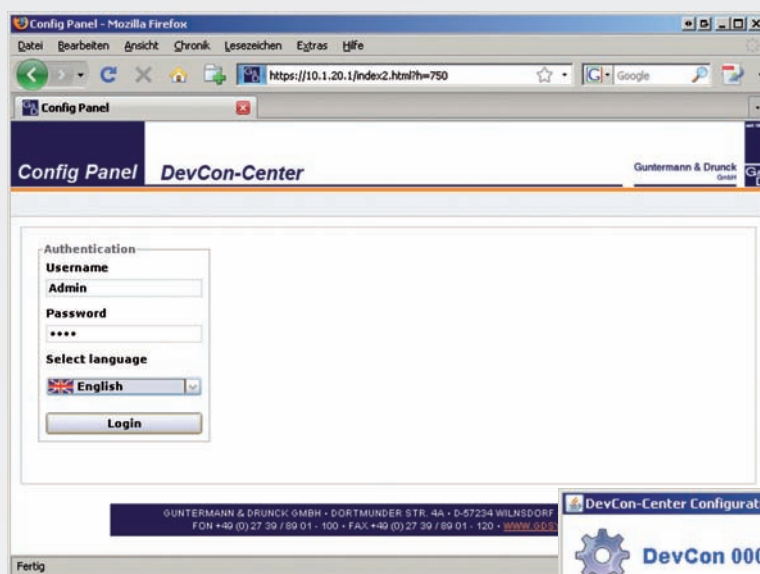
Configuration

The DevCon-Center and the devices connected to it are configured in the „Config-Panel“ web interface. Here you can adjust any settings regarding the device or the connection to the network.

The access is password-protected. The web interface is available in German and English.

The following sections can be configured:

- authentication against directory services (LDAP, Active Directory, RADIUS, TACACS+)
- time synchronisation via NTP server
- log messages can be sent to syslog server
- SNMP monitoring of computers and network devices
- netfilter rules



The DevCon-Center stays in direct contact with the connected devices and queries their status or receives messages and transmits them accordingly. Thus active monitoring becomes possible.

Logbook

The web interface provides an intelligent electronic logbook. This logbook can be used, e.g. to note future tasks and assign them with a status or to store comments regarding the device. Any logbook entries can be exported as .csv file.

◀ Figure:
Login mask of DevCon-Center web interface

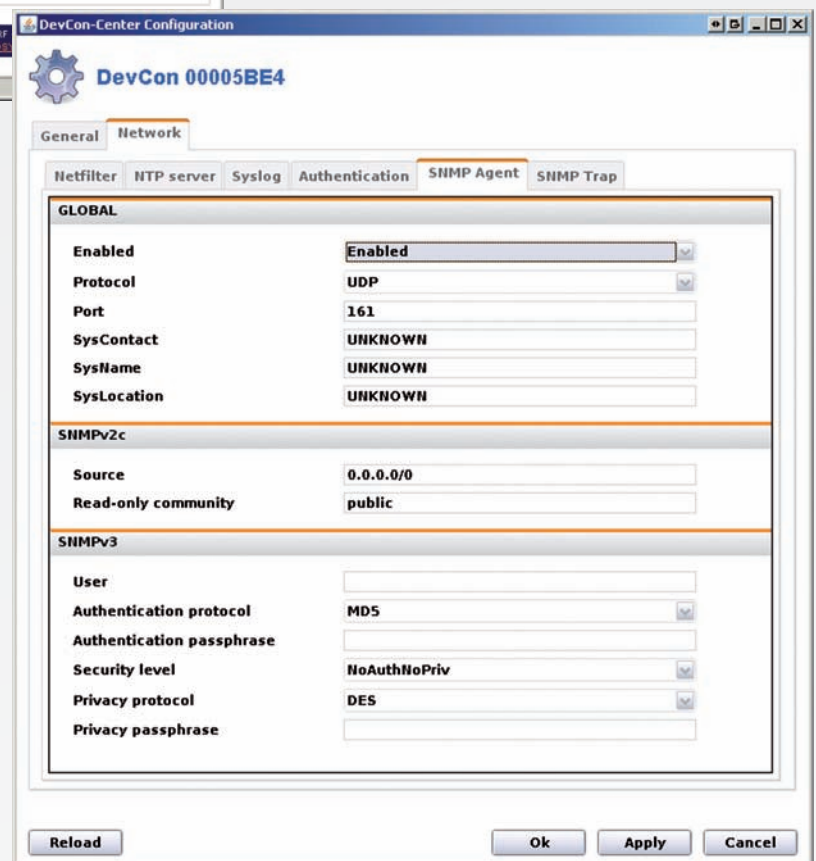
Within the configuration menu all connected network-able KVM devices can be given unique names for easy identification.

Configuring the network settings the user can define netfilter rules, activate the support of a central NTP server and adjust the authentication type.

Furthermore storage locations as well as log levels for syslog messages can be pre-defined within this menu.

SNMP functionality facilitates external querying of the SNMP agent by using an appropriate MIB file. The version SNMPv2c and v3 are supported. Additionally the forwarding of SNMP traps is integrated in the DevCon-Center.

► Figure:
Network configuration of DevCon-Center



Monitoring

The „**Monitoring**“ feature enables the detection of device status information. The information is displayed in the web interface of the devices.

All devices connected to the DevCon-Center are visualised in this tree structure.

New sectors can be created and devices can be grouped into these sectors. The default folder [Critical extenders] automatically extracts a copy of all devices with critical values allowing a fast and targeted access.

All values that differ from the target value are highlighted in red. Furthermore, the lower status bar of the web interface gives out a warning for each window as soon as a defined critical value is reached.

The screenshot displays the DevCon-Center web interface in a Mozilla Firefox browser. The main window is titled 'Config Panel - DevCon-Center'. It features a left sidebar with a tree structure for configuration, including 'System', 'DevCon-Center', 'KVM Extender', and various locations like 'Belgium', 'Military', 'Nederland', and 'Nordduitsland'. The main area shows a table of devices with columns for Name, Status, Main power, Red. power, and Temp. °C. A red warning bar at the bottom states: 'Several monitoring values are outside the target area'.

Name	Status	Main power	Red. power	Temp. °C
Belgium 1 CON	On	On	On	49.5
Belgium 1 CPU	On	On	On	59.5
Military 1 CON	On	On	On	89.5
Military 1 CPU	On	On	On	59.5
Nederland 1 CON	On	On	On	49.5
Nederland 1 CPU	On	On	On	59.5
Nordduitsland 1 CON	On	On	On	49.5
Nordduitsland 1 CPU	On	Off	On	59.5

Below the table, there is a 'Filter' input field and a list of actions: Configuration, Information, Connections, Remote system, Delete KVM Extender, Cut KVM Extender, Paste KVM Extender, and Remove from location.

The bottom-left window shows the 'KVM Extender-CPU-Information' for 'Nordduitsland 1 CPU'. It displays details for the KVM Extender CPU, including Name, CPU ID, Status, and Comment. Below this is the 'DEVICE INFORMATION' section with fields for MAC address A/B, Firmware revision, Serial number, IP-Address A/B, and a 'MONITORING' section with various status indicators like Main power, Red. power, Temp., Srv. pwr, DVI-D 1, Link 1.1, Link 1.2, DVI-D 2, Link 2.1, Link 2.2, Srv. PS/2, Srv. USB K/M, Srv. access, PS/2 Con, and USB Con.

In addition to the overview (figure above), the values of all devices are also displayed in their device info card.

Among other things, the following status values are provided:

- main power supply – device
- redundant power supply – device
- power supply – computer
- DVI video input connection 1
- DVI video input connection 2
- uninterrupted transmission on all transmission cables
- access preemption for CPU or CON side

Figure left:
Device info card of a DL-Vision-MC2-CPU KVM extender monitored by a DevCon-Center

DevCon-Center



left: DevCon-Center rear view
right: DevCon-Center front view



DevCon-Center	
General information	
No. of local console ports	0
Console connection	Over network
Network ports	2
Speed	10/100/1000 Mbit/s
Transmission medium	Ethernet cable
Housing (W x H x D)	
Desktop	435 x 44 x 285 mm
Rack mount	19" x 1 U x 285mm
Weight	Approx. 2700g
Main power supply	
Type	Internal power pack
Connection	IEC plug (IEC-320 C14)
Voltage	AC100-240V/60-50Hz 0,3 - 0,2A
Redundant power supply	
Type	Internal power pack
Connection	IEC plug (IEC-320 C14)
Voltage	AC100-240V/60-50Hz 0,3-0,2A
Interfaces	
Network A	RJ45 socket
Network B	RJ45 socket
USB 2.0	2 x USB-A socket
RS485	RJ45 socket
RS232	J11 socket
Service	Mini-USB Type B
Update	
Process	Over integrated web interface
Connection	1 x Mini-USB-B-Socket
Operating Environment	
Temperature	+5 bis +45 °C
Air humidity	< 80% non-condensing
Conformity	CE, RoHS

Item Number

Item No.	Description	
A3200008	DevCon-Center	Central monitoring and reporting appliance for networkable G&D devices

Legend

ABBREVIATIONS

CPU = Computer module
PC = Computer module

CON = User module
REM = User module

MC2 = Multichannel 2
MC3 = Multichannel 3
MC4 = Multichannel 4

M = Multimode
S = Singlemode
RM = For assembly in a 19" rack

A = Audio
AR = Audio + RS232
R = RS232
U = transparent USB 1.1
U2 = transparent USB 2.0
D = Delay

EQUIPMENT FEATURES



= keyboard/mouse



= dual-link DVI video



= single-link DVI video



= single-link DVI + VGA



= VGA video



= Audio



= RS232



= USB 1.1



= USB 2.0



= Delay



= Screen Freeze



= Power Switching



= Fire Wire



= VT100



= KVM IP access



= Network connection



= Web interface



= DevCon support



= Monitoring



= CAT cable



= Fiber optics



= Single user



= Multi user



= Separat local/remote user