KVM-over-IP™ in a new
dimension – discover the

ControlCenter-IP

KVM
over IP™

Experience the diverse functionalities of the G&D matrix systems combined with the flexibility of KVM-over-IP™

The sophisticated G&D KVM portfolio is growing, and bringing an absolute novelty on the market in terms of IP transmission. In addition to the previously introduced extender system based on G&D's KVM-over-IP™ technology, the new ControlCenter-IP is now conquering the network world.

This centralised KVM matrix allows, in addition to the existing point-to-point connection of IP extender systems, switching of all connected computer and workstation modules and extends the ease of use and flexibility.

The ControlCenter-IP scores with innovative technology for user-friendliness in the network.

The ControlCenter-IP enables the switching of the following signals

- DP 1.2a and DP 1.1a
- Single link and dual link DVI
- Bidirectional audio transmission
- Support of PS/2 and USB keyboard/mouse
- RS232 transparent

Device properties of the ControlCenter-IP

- The device takes over the central system logic
- Redundant power supply
- Redundant network interface
- Access protection and user administration (can be switched off)
- Boot loader, operating system and firmware form a trusted computing platform to protect the system against third-party manipulations
- Integrated Trusted Platform Module (TPM) protects any access and configuration data against exposure with RSA encryption process

The features and enhancements of ControlCenter-IP

- TradeSwitch function
- CrossDisplay Switching incl. support for multi-head graphics
- Push-Get function
- IP-Control-API incl. Scripting funktion
- Channel grouping
- Monitoring, SNMP, syslog
- Authentication
- Hotkeys, select buttons
- User rights management
- MultiUser access
- PowerSwitching: Support for IP-based circuit breaker (Neol)
- Support for AMX or Crestron control systems
- Support for GPIO

Integrate IP Matrix into the network

In order to use the full functionality of the ControlCenter-IP, this appliance is incorporated into the network in addition to each extender systems (CON and CPU).

While the central routing itself is handled via standard network switches, the ControlCenter-IP takes over the logic in the network and optimises the accessibility of all devices among each other by allowing the switching between the CON and CPU modules. The user moves in a high-performance G&D matrix environment while leveraging the benefits of flexible network.

Easy to use and compatible

G&D has taken the features of the classic ControlCenter series and integrated it into the KVM-over-IP ™ matrix. The resulting ControlCenter-IP combines the advantages of both devices.
This includes the basic administration with extensive user and rights management. Many helpful and popular control room features such as monitoring, scenario circuits, push-get for optimal cooperation and incorporation of video walls to the CrossDisplay switching for absolutely intuitive operation of multi-monitor workstations are also available. The G&D IP devices are compatible with each other and allow optimisations in the customer-side system and its extension at any time.

Function of the ControlCenter-IP

The ControlCenter-IP supplements the series of Vision-IP of G&D with a variety of matrix functions. These functions use G&D's KVM-over-IP™ for the transmission of signals. The transfer takes place under compression with CAT wiring via standard IP-based networks (OSI layer model 3) and a Gigabit Ethernet. Using bandwidth management, the user can adjust the transmission to a variety of bandwidth requirements.

The transmission length is almost unlimited, two active network components can be connected together over a length of up to 100 m via CAT.

Powerful and secure in the network on the way with the ControlCenter-IP

Safety first

Since a dedicated wiring to the device is omitted and people work over the network, the transmission security plays a very important role. The ControlCenter-IP or the end components based on KVM-over-IP ™ extenders access only the standard interfaces of the computer and therefore no software installation is required.

Trusted Platform Module (TPM)

Boot loader, operating system and firmware of the ControlCenter-IP form a so-called „Trusted Computing Platform", which is protected from tampering by third parties. Here, an integrated „Trusted Platform Module" (TPM hardware module) with an RSA encryption algorithm and a key length of 2048 bits secures all access and configuration data against spying. Sensitive information such as login information and passwords are stored as permanently encrypted. Possible modifications of the firmware can be detected early, and this lead to an interruption of the boot process. Manipulation attempts, such as smuggling of a keyboard sniffer, are prevented.

Targeted redundancy – security by RAID

To protect the rights management and configuration data, the ControlCenter-IP reflects their content on two independent internal SSD storage media that are designed redundantly by a RAID1 network system. Of course, all information of the rights and configuration management are also backed by unique cryptographic keys.

Expansion of system size

Due to the flexible system topology, installations can be scaled arbitrarily and expanded easily via standard network elements. The system sizes of the matrix application are easily enabled for this via license key. Using this, the system can then subsequently expand as needed.

Integration of IP matrix into a network
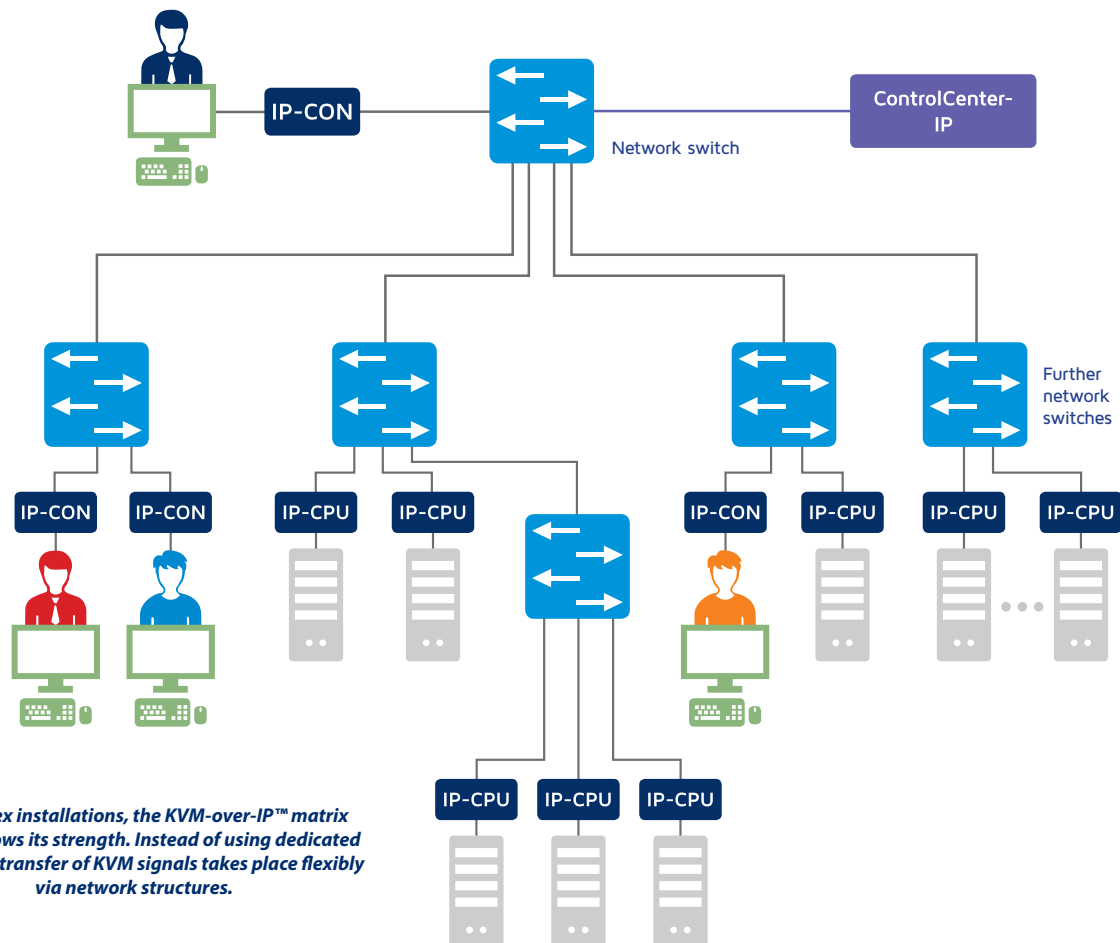
In complex installations, the KVM-over-IP™ matrix system shows its strength. Instead of using dedicated wiring, the transfer of KVM signals takes place flexibly via network structures.

Our IP-based KVM extender modules offer the right solution for working in network structures

Mix and match in the IP extenders

In order to be able to use the ControlCenter-IP application in the network, G&D workstation and computer modules are integrated into the network. Select the appropriate IP extender system from our product portfolio.

The modules are compatible with each other and thus the technical possibilities are virtually limitless. In all devices, the transmission takes place as compressed and pixel-perfect; the video quality is lossless and features near-zero latency.

Common features of IP extender for signal transmission

- Support of PS/2 and USB keyboard/mouse
- Permanent keyboard and mouse emulation
- Permanent monitor emulation (CPU)
- Audio stereo bidirectionall
- RS232 transparent
- Cross compatible (DVI <-> DPxx)

DP1.2-Vision-IP-CAT-CON

- DisplayPort 1.2a and 1.1a
- Supports 4K and UltraHD resolutions @ 60Hz
- Resolution up to 4096 x 2160 @ 60 Hz*
- Embedded Audio

DP-Vision-IP-CAT-CON

- DisplayPort 1.1a
- Resolution up to 4096 x 2160 @ 30Hz*
- Embedded Audio (in preparation)

DL-DVI-Vision-IP-CAT-CON

DVI-Vision-IP-CAT-CON

- Single link and dual link DVI video
- Resolution up to 2560 x 1600 @ 60 Hz*

* Further resolutions are possible within the respective interfaces.

- Single link DVI video
- Resolution up to1920 x 1200 @ 60 Hz*

KVM-over-IP™ – overcome the limits of dedicated cabling

With KVM-over-IP™ devices you overcome the limits of dedicated cabling. You can control multiple computers on a network (LAN) over TCP / IP protocols.
You can access the configuration interface via web browser. KVM-over-IP™ solutions work across operating systems and are available as compact stand-alone devices.

- Transmission via standard IP-based networks (OSI layer model 3)
- 1 Gbit bandwidth per port, reducible
- HDIP level 1-3

- Secure and trouble-free operation through pairing and encryption with AES-128 (not manipulable)
- Transmission length almost unlimited, max. 100 m CAT between two active components
- Support of Quality of Service with configuration option by the user
- User-configurable network ports of the respective communication channels
- Additional independent management interfaces (front)

Whether intuitive operation or changing scenarios – the ControlCenter-IP provides a lot of control room features

CrossDisplay-Switching

With the innovative CrossDisplay-Switching as part of the TS-function (digital matrix system), users can use the mouse to easily switch between channels. The mouse acts as if on a „virtual desktop" and can be moved seamlessly across the connected displays. Moving the cursor from the active to another display, the keyboard-mouse focus automatically switches to the connected computer. Now users can create a multi-monitor console and need only one keyboard and one mouse to operate all computers. The mouse becomes the ultimate intuitive switching tool.

Your advantages:

- Easy switching by using the mouse, in addition to switching between channels using hotkeys or the OSD
- Intuitive operation and more efficiency at the workstation
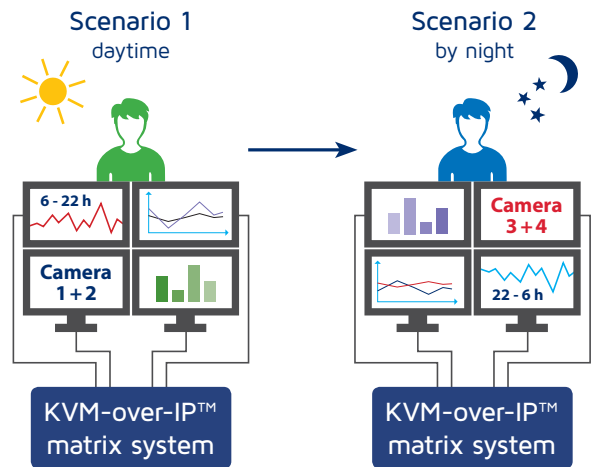- Computers with multi head graphics can be included
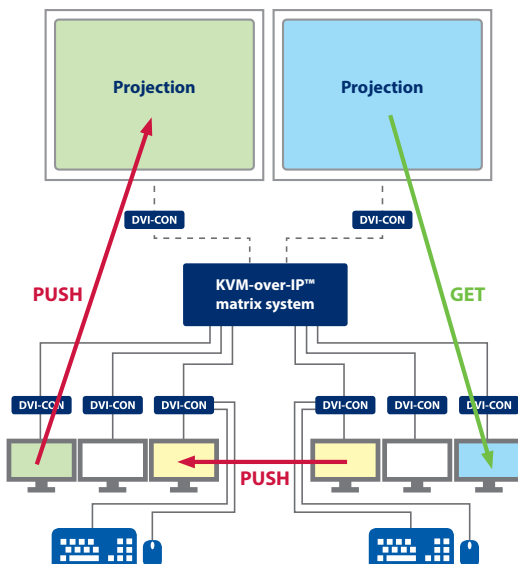

Scenario switching

Scenario switching lets you store the switching condition of one or multiple workplaces or even of the entire system. The selected switching states are saved in a script in the matrix system and can be accessed and executed via the OSD of workplaces assigned with the required rights.

Your advantages:

- Individual settings
- Fast switching of several workplaces
- More intuitive operating concepts
- Usability of all commands of the text-based control
- Comprehensive control options

Scenario 1 daytime

Scenario 2 by night

6 - 22 h
Camera 1 + 2
KVM-over-IP™ matrix system

Camera 3 + 4
22 - 6 h
KVM-over-IP™ matrix system

Example for day/night scenarios: One single command switches all computers required at the console from day to night shift.

Projection

Projection

DVI-CON

DVI-CON

PUSH

KVM-over-IP™ matrix system

GET

DVI-CON   DVI-CON   DVI-CON   DVI-CON   DVI-CON   DVI-CON

PUSH

Push-get function

Push-get function optimises collaboration in the control room and allows the user to „push" (push) the image on his monitor to the display of another workstation or a large-screen projection or to „get" it from there (Get).

This solution also improves the communication, flexibility and speed within the team, since employees can now perform tasks together.

From professionals to professionals:

Trust in our professional solutions – from planning through to aftersales support.

Main office

Guntermann & Drunck GmbH
Systementwicklung
Obere Leimbach 9
D-57074 Siegen

Phone   +49 (0) 271/23872-0
Fax   +49 (0) 271/23872-120

sales@gdsys.de
www.gdsys.de

US branch

G&D North America Inc.
55 Madison Avenue
Suite 400
Morristown, New Jersey 07960, USA

Phone   +1 (973) 462-7001

sales@gd-northamerica.com
www.gd-northamerica.com

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