MLB Network
Case Study

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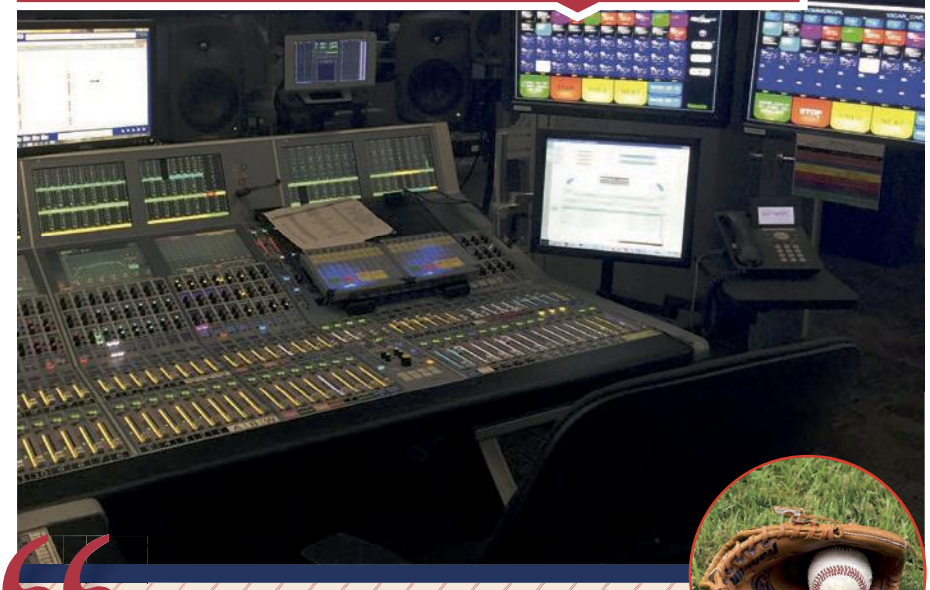
Home Run for MLB Network with G&D's ControlCenter-Digital



We are glad that we decided to invest in a G&D KVM system for our full KVM replacement solution. In addition to the system features and the product quality, we have enjoyed working with G&D. We have not only been treated as an important customer, G&D worked with us as a trusted partner on Phase One of the project. The sales team and the support team work in lock step and have answered all our questions about the G&D systems in a prompt and accurate manner. The support during the planning and implementation phases was impressive.
- Steven Rittenberg, Director of Engineering

MLB Network, the 24/7 cable TV network dedicated to baseball, is operating two G&D matrix systems in its headquarters in Secaucus, New Jersey. The Control Center-Digital frames have a size of up to 288 (CCD 288) and up to 160 (CCD160) dynamic ports.

MLB Network replaced parts of its older analog KVM system with G&D's ControlCenter-Digital, delivering added flexibility due to an increase in ports coupled with G&D's dynamic port system. In 2017, MLB Network will complete a facility-wide KVM conversion to G&D.

MLB Network now has the option to configure its individual KVM workplaces with either cascading or a bi-directional connection of the CCD systems allowing easy expansion of its KVM infrastructure. Important criteria for MLB Network's new KVM system included general product quality, the option for expansion, low latency, fast switching speed, and high video quality. G&D offers high-end KVM systems that fulfill all of these requirements and specifications.

MLB Network is now working with a mix of DP, DVI and VGA servers connected to the Control Center Digital matrix frames. The CPU units have either individual power supplies or are connected to a central power supply unit (MultiPower-12 for up to 12 x G&D CPU module).

On the operator side, MLB Network decided to make use of mainly DVI and DP operator units (DVI-CON and DP-CON).

G&D NORTH AMERICA INC.

Overview

Customer

MLB Network is the ultimate television destination for baseball fans, featuring the multiple Emmy Award-winning MLB Tonight, live regular season and Postseason game telecasts, original programming, highlights, and insights and analysis from the best in the business. MLB Network debuted in 50 million homes, is currently distributed in approximately 68 million homes throughout the U.S., Canada and Puerto Rico, and is available for live, authenticated streaming via MLB.com AT Bat and MLBNetwork.com. For more information and to find MLB Network in your area, go to www.MLBNetwork.com.

Challenges

- Expanding IT environment
- Separation of equipment and staff
- Access to hardware in different locations

Products

KVM matrix & peripherals:
1x ControlCenter-Digital 288
1x ControlCenter-Digital 160,
DP-HR-DH-CPU & CON modules,
DVI-CON & DVI-CPU, VGA-CPU-UC
KVM extenders:
DVI-Vision-CAT-AR-CPU & CON
KVM accessories:
Multipower12 & Device Carrier
Features:
KVM Matrix-Grid™ function

Result and benefits

- Removing computers from workplaces for better working conditions
- Central system storage in dedicated server rooms
- Access to multiple platforms via the work places
- Bridging the distance of different locations in a mixed fiber and CAT-x environment

Operator module with Generic USB Hub

DVI-CON interfaces
Touch Monitors or other USB HID devices can be connected to the Generic USB Hub. Please note: some (HID) USB devices might require CON and CPUs with embedded USB, e.g. DVI-U-CON and DVI-U-CPU.

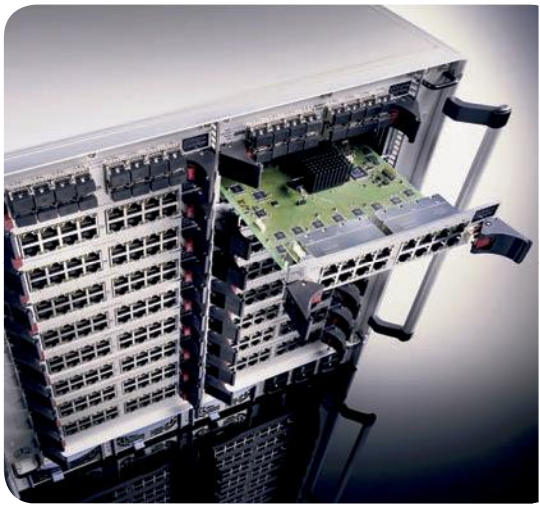
MultiPower-12
The MultiPower-12 with up to 12 output interfaces for G&D CPU devices with 12V and max- 600mA power consumption. Requires 1 rack unit.

Device Carrier for G&D CPU modules
The Device Carrier for up to 3 G&D CPU modules. Requires 1 rack unit. Different Device Carriers for 1, 2 or 12 (requires 3 rack units) CPU modules are available.

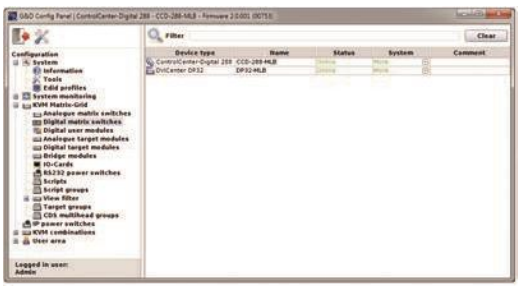
Since MLB Network had to connect servers and operators in different physical locations from the matrix switches, the ability to mix CAT-x and fiber optical cards in the matrix frame became important. The modularity of the G&D system gives MLB Network the option to expand its (KVM) installation step by step. Since the re-design of MLB Network's KVM infrastructure was complex, the flexibility of G&D's CCD matrix series was a perfect match for short and long term needs.

The CCD 288 system has 18 modular cards which can be used either to connect fiber single mode, fiber multi mode or CAT-x. cables Since both the switch card and the control card are designed in a modular way, it is possible to replace these cards if necessary. With just 9 rack units height the frame is quite small for a 288 port matrix system. The system can be expanded by cascading or by G&D's KVM MatrixGrid™ feature which delivers more flexibility as a simple cascade.

The system also offers MLB Network a simple configuration via web interface, has the option to configure individual user rights, benefits from easy operation (e.g. switching via individually defined hot keys or by on screen display) and promises high reliability of the system and its components.



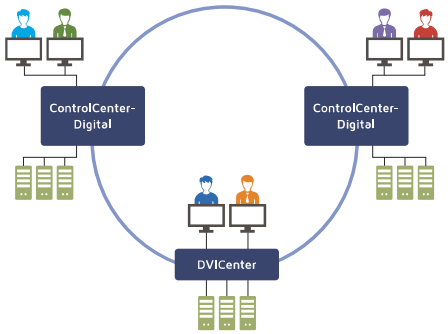
G&D CCD 288 frame with up to 288 dynamic ports to connect either CPUs or CON modules, mix of Fiber and CAT-x ports.



Screenshot Webinterface & Configuration MLB CCD 288
G&D's web interface for the initial system configuration is simple and clearly arranged which makes navigation and orientation simple. CPUs and CONs show up in separate lists and it is possible to give a name or number (up to 15 characters) to each module. It is also possible to configure pro-active monitoring thresholds and access rights for individual users or for user groups.

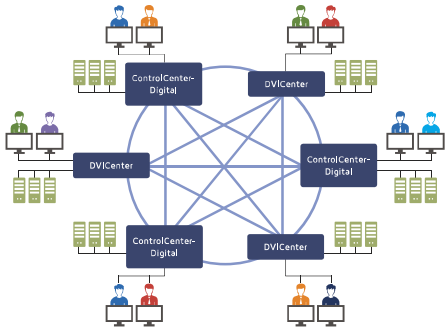
To accommodate potential future growth in infrastructure, MLB Network is planning to implement G&D's KVM Matrix-Grid™ function for bi-directional access between different matrix frames. This will enable the network to interconnect CCD matrix frames that are installed on different locations within its facility, as if working in a virtual super matrix system.

> *It did not take us long to understand how the system configuration works. Each operator and server module has an individual ID, therefore each module is listed as CPU or CON unit on the web interface. Even an operator or system administrator who has no experience with G&D systems can easily figure out how they work. During the installation process, G&D's U.S. Sales and technical support provided information and assistance directly.*
> ***- Jordan Smith***
> ***Engineering Manager***



KVM Matrix-Grid™ example: networked ring

Ring topologies, for example, support redundancy concepts even better: if a connecting line or a node fails, the system finds an alternate path for switching KVM signals. Therefore, users benefit from always available installations.



KVM Matrix-Grid™ example: fully connected network

The fully meshed network provides the maximum of accesses between individual matrices. In a later step the system automatically takes over the routing of KVM signals by selecting the ideal path through the grid.

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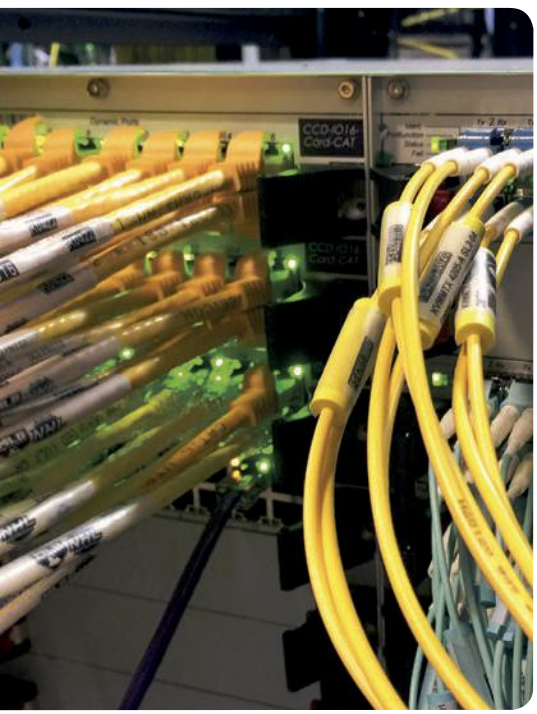

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