

Technology Solutions

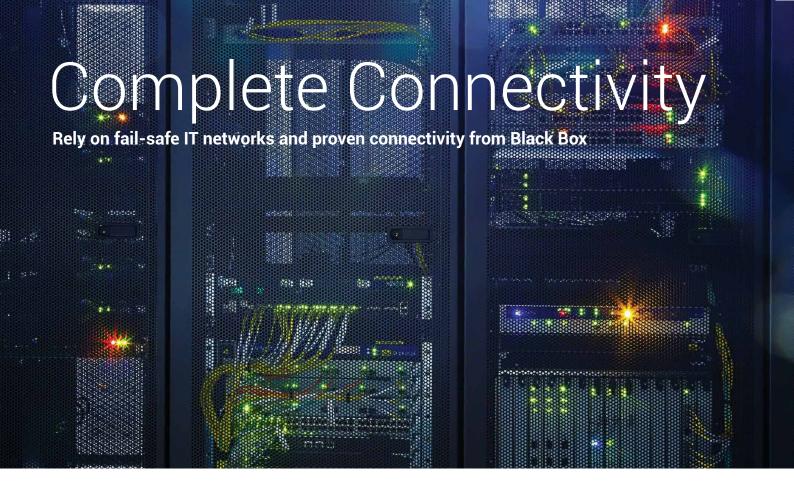
Solutions for corporate, education, military & defense, public safety, healthcare, retail & hospitality, industrial, broadcast, and transportation.

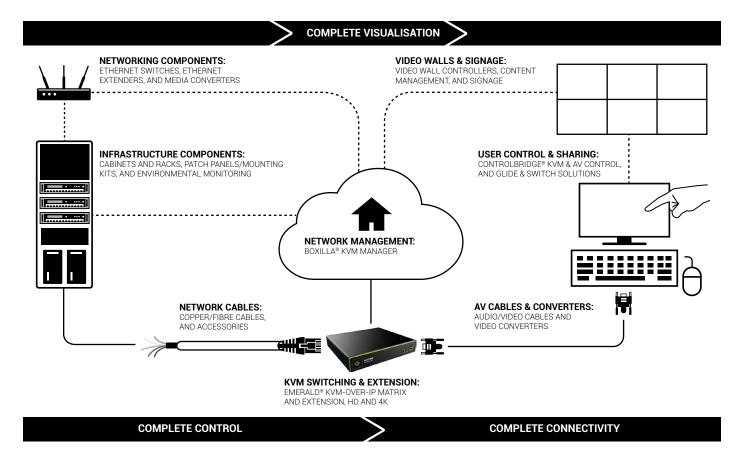




Black Box has been a world-leading provider of premier IT infrastructure solutions for more than 40 years. Today, the company continues to design and manufacture awardwinning pro AV, KVM, cabling, and networking products known for their advanced functionality, flawless performance, outstanding reliability, and fail-safe security. Black Box solutions are used every day in government, education, commercial enterprises, and any other organisation that requires the utmost quality and performance from its IT infrastructure.







All Black Box products are interoperable to bring our customers comprehensive connectivity solutions that provide maximum uptime, reliability, and scalability. The above diagram provides an example of how Black Box products work together to provide a complete connectivity solution for your application.

Black Box offers the most comprehensive suite of IT solutions in the industry, including:

AV

Video walls Digital signage Video splitters Video extenders AV cables and adapters

Cabinets and Racks

Network and server cabinets Soundproof and Climate cabinets Freestanding, wallmount, and mobile racks Cable management

Cabling and Connectivity

Copper network cables Fibre network cables

KVM

NIAP 3.0-certified secure KVM KVM matrix switching KVM switches and extenders KVM management

Networking

Ethernet switches and extenders Media converters Remote monitoring USB solutions

Power

Uninterruptible power supplies Data line surge protectors Power distribution units

Why Black Box?

Black Box offers 24/7 tech support, free application engineering, service level agreements, product and marketplace expertise, warranties, and the most advanced IT solutions in the industry.





Black Box empowers businesses of all sizes by aligning IT and communications solutions to desired business outcomes. We help transform operations for the better with the most innovative technology products and solutions on the market. We guide our customers through the complex challenge of transitioning from traditional communications to dynamic and integrated IT technologies and services.

Solutions



Networking



Wayfinding and Visual Communications





Infrastructure

Remote Access



iCOMPEL®

Motivate teams with real-time KPI display, save time while enhancing communication, and manage emergency response from a simple-to-use CMS with this digital signage solution.

www.black-box.eu/icompel >



MCX Advanced AV over IP

Deliver 4K 60 Hz 4:4:4 video and audio without sacrificing latency, video quality, or bandwidth. MCX offers advanced features like seamless switching; zero source to display latency; and video scaling options, such as multiview, picturein-picture, split screen, and more.

www.black-box.eu/mcx >



USB 3.0 / 2.0 / 1.1 Extenders

Put USB devices where you need them. Connect remote USB devices such as printers, scanners, storage devices, and hard drives to a local PC or laptop anywhere from 15 metres to 10 kilometres away.

www.black-box.eu/usbextenders >



Secure Console Servers

Manage remote mission-critical IT, network, and power devices to enable 24/7 uptime. Complete redundancy and seamless reliability are provided via dual Gigabit Ethernet ports and optional dual power supplies.

www.black-box.eu/ consoleservers ►



Pure Networking Media Converters

Extend the reach of your network and provide better connectivity in your enterprise. Straightforward installation means quick, hasslefree deployment.

www.black-box.eu/ purenetworking >



4K Presentation Switcher Easily connect, extend, and switch any wired video source to any conference room display. This switcher's simplicity and best-inclass features help you save time and deliver professional presentations.

www.black-box.eu/ presentationswitchers ►

Customer Use Case: Joy Mining

Joy Mining Machinery wanted to standardise communications, provide real-time metrics, promote plant competition, and reduce safety issues and lost-time accidents. To do this, they needed to centralise control of company branding and messaging across 55 global facilities. They turned to Black Box, who rapidly designed, configured, and provided a world-class digital signage distribution system based on the iCOMPEL platform that allowed the company to create, schedule, and manage messages site-wide from one location. As a result, Joy Mining has seen improved communications, productivity, OTD, and a reduction in safety issues and accidents.

Education

Today's classrooms require reliable real-time collaboration to be successful. Black Box offers innovative solutions that transform the way students and faculty work together. Allow group discussions, posing questions to the class, and student presentations to occur without barriers with our complete education connectivity solutions.

Solutions



Room Scheduling



Emergency Messaging and Information Sharing



Video Switching and Distribution



Infrastructure



iCOMPEL®

Maximise student, staff, and faculty participation with this easy-touse digital signage solution that supports every type of content. Integrate it with your emergency system to enhance school safety.

www.black-box.eu/icompel >



IN-SESSION

Booking a meeting room shouldn't be a hassle. The IN-SESSION room scheduling system allows you to easily locate and instantly reserve meeting rooms with the tap of a button or the swipe of a touch panel.

www.black-box.eu/insession >



VideoPlex 4000 Video Wall Controller

Standalone display wall controller/ scaler that outputs high-resolution DVI video up to 4K to multiple monitors. Display content that informs your students, faculty, and staff of school events, emergencies, and more.

www.black-box.eu/videoplex >



4K Presentation Switcher

Easily connect, extend, and switch any wired video source to any conference room display. This switcher's simplicity and bestin-class features help you save time and deliver professional presentations.

www.black-box.eu/ presentationswitchers •



Active Optical Cables

Active Optical Cables extend 4K HDMI video hundreds of metres without any additional software or devices. They are ideal for displaying high-quality images to students during lectures.

www.black-box.eu/aoc >



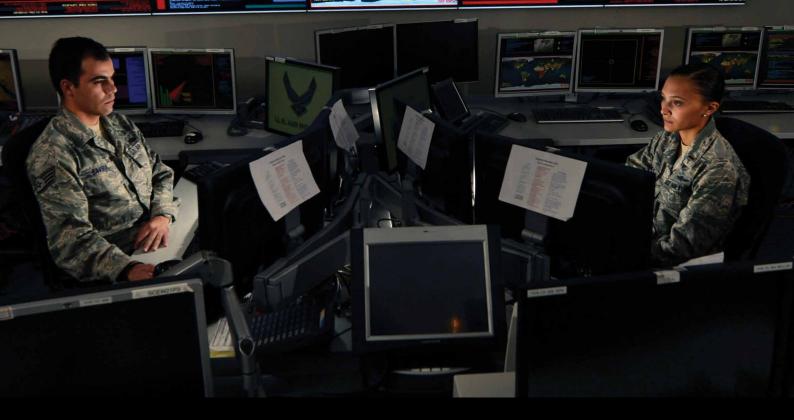
GigaTrue CAT6 Lockable Patch Cable Get premium network connectivity, performance, and security in your school system. This cable stays locked in place until you decide to take it out.

www.black-box.eu/3series >

Customer Use Case: La Roche College

La Roche College wanted a digital signage system that could display news, events, emergency notifications, Twitter feeds, and other social media sites to engage students and staff. Their challenge was finding an intricate networked digital signage system that could display live studentand user-generated content in real time. They decided on a world-class digital signage system based on the iCOMPEL platform from Black Box. The system met all their requirements while keeping them on budget and enhanced communications for students, faculty, and other staff.

Military & Defense



Black Box understands federal agencies' requirements for secure, compliant technology solutions. We design advanced products that meet the latest and most rigid security standards to help you achieve your objectives, meet your budget, and optimise your productivity without sacrificing your safety.

Solutions



Secure Desktop



Fibre to the Desktop



Command and Control



Data Centre and Infrastructure



NIAP 3.0-Certified Secure KVM Switches

This broad line of secure KVM products features secure peripheral control between multiple computers and devices with different classification levels which protects confidential information. They also provide port isolation between networks, ensuring no data is leaked between secure ports and the outside world.

www.black-box.eu/securekvm >



Micro Mini Media Converters

Bring Gigabit fibre to the desk easily and cost-effectively with these ultra-compact media converters. For extra versatility, they can be USB-powered.

www.black-box.eu/ microminimediaconverters **>**



Emerald® Unified KVM

KVM-over-IP system that extends and switches pixel-perfect HD or 4K video over an existing or dedicated IP network. Greatly improves operator workflows in control room settings.

www.black-box.eu/emerald >



Radian Flex

Flexible, scalable, future-proof video wall processing platform that gives you the power to control content and how it displays. Failsafe upgrades available to ensure performance in control room environments.

www.black-box.eu/radianflex >



CATx Bulk Cables

Select from a wide offering of top-quality copper cables with PVC or LZOH jacket tested to meet all industry standards. Many come in 305-metres (1000-feet) pull boxes that are easy to transport and simplify installation.

www.black-box.eu/catxbulk >



ClimateCab™ Cabinets Protect your essential electronics with the highest-quality cooling cabinets available. Ideal for remote locations, wiring closets, and

industrial sites.

www.black-box.eu/climatecab >

Customer Use Case: Government Data Centre

A new U.S. Government land base data centre needed to roll out a complete data centre, including infrastructure for KVM, to support deployed naval ships. Additionally, they wanted to reduce data centre noise, cool sensitive equipment, and reduce space. They contacted Black Box, who designed a high-performance data centre with climate-controlled cabinets that kept server noise to a minimum, cooled mission-critical IT equipment, and didn't clutter the workspace. For the required KVM functionality, Black Box installed a high-performance KVM-over-IP matrix switching system that met the customer's needs for command and control, and improved naval ship support and operations.

Public Safety

Every emergency operations centre (EOC), 112 or 911 call centre, and publicsafety answering point (PSAP) relies on critical information visualisation and communication. Black Box control room solutions enable real-time video and information sharing between field and operations centres, resulting in improved situational awareness and faster response times. When lives are on the line and communication is critically important, trust our extensive portfolio that showcases more than 40 years of technical expertise.

Solutions



KVM Switching and Extension



Collaboration and Control



Video Switching and Extension



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Real-Time Data Visualisation



NIAP 3.0-Certified Secure KVM Switches

Secures control centre servers and network enclaves with hardwarebased data isolation, secure EDID learn and video emulation, and true isolation between device connections, making it easy to switch between networks with different classification levels. Supports resolutions up to 4K UHD.

www.black-box.eu/securekvm >



Freedom II KM Switches

Switch between four or eight computers by moving a mouse from screen to screen. Perform functions that would normally require eight separate keyboard/ mouse sets with one keyboard and mouse, freeing up desk space.

www.black-box.eu/freedom >



Emerald[®] Unified KVM

Access and manage an unlimited number of PCs from any location. Share resources such as hardware and licenses across an existing or dedicated IP network.

www.black-box.eu/emerald >



4Site KVM Multi-Viewer

Control four servers from one keyboard and mouse. Display video from those four servers on one monitor all at the same time and in real time.

www.black-box.eu/4site >



Radian Flex

Enable faster communication and better informed decision-making with the software-based video wall system that gives you complete control over content. Display highquality content from any source, across multi-screen display walls in any configuration.

www.black-box.eu/radianflex >



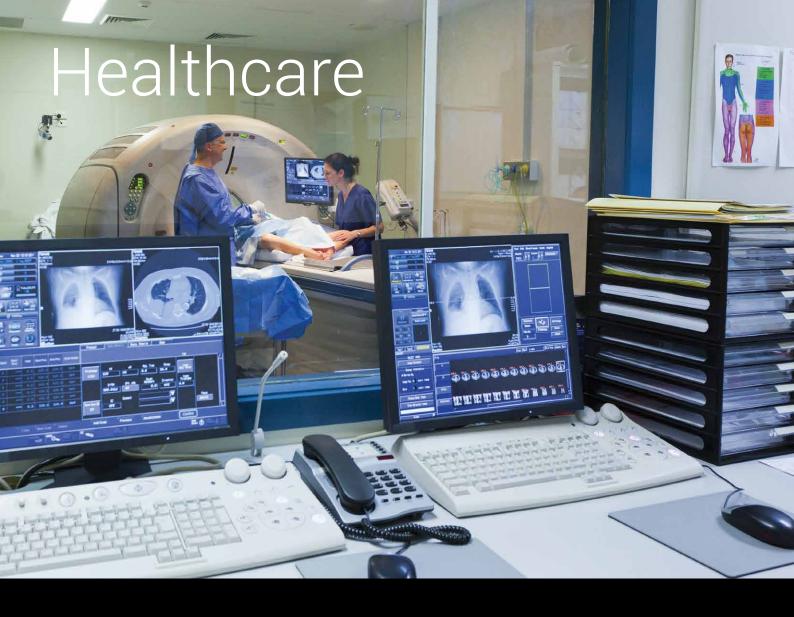
ControlBridge®

Achieve the highest level of automated room control with this room control system. Connect and control everything in your control room through one platform.

www.black-box.eu/controlbridge >

Customer Use Case: Miami Dade E911 Centre

The Miami Dade E911 Centre required an easy-to-use real-time KVM switching system to improve response times, eliminate inefficiencies, minimise system delay, and end complex new user training. They asked Black Box to implement a complete KVM solution. Black Box deployed an easy-to-use KVM system with Glide and Switch functionality that allowed operators to instantaneously switch from one monitor and one server to up to four additional screens, improving operator workflows and response times, and simplifying new user training.



Healthcare operations rely on leading-edge technology to improve patient experiences, optimise workflows, and make certain no errors occur in crucial, time-sensitive situations. Black Box provides powerful KVM, digital signage, cabling, and other solutions tailor-made for large hospitals, small medical private practices, and any healthcare facility in between.

Solutions



KVM Switching and Extension



Visual Communications and Wayfinding





Infrastructure

Connectivity



MCX Advanced AV over IP

Deliver 4K 60 Hz 4:4:4 video and audio without sacrificing latency, video quality, or bandwidth. MCX offers advanced features like seamless switching; zero source to display latency; and video scaling options, such as multiview, picturein-picture, split screen, and more.

www.black-box.eu/mcx >



iCOMPEL®

This digital signage solution lets you create a better patient experience with clear wayfinding signage and scheduling update boards. It also engages staff with easy content control.

www.black-box.eu/icompel >



Emerald® Unified KVM

Experience pixel-perfect HD or 4K video resolution for highquality imaging with no blurring or pixelation. Perfect for medical imaging where picture quality is crucial.

www.black-box.eu/emerald >



USB 3.0 / 2.0 Extenders

Overcome the distance between medical imaging equipment in the imaging room and host computers in the technician room, without compromising on image quality.

www.black-box.eu/usbextenders >



Pre-Terminated Fibre

High-quality pre-terminated fibre cable that provides maximum uptime in crucial medical environments. Plug-and-play installation means no headaches during deployment.

www.black-box.eu/pretermfibre >

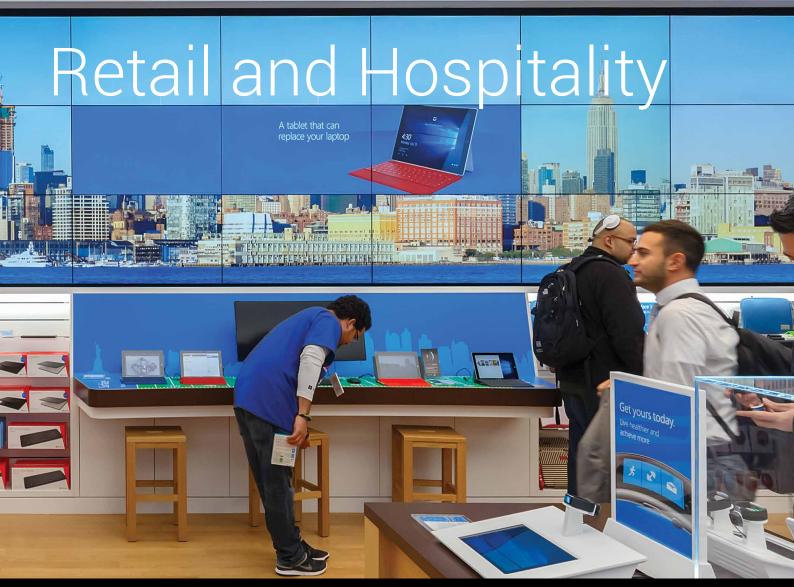


Soundproof Cabinet Put networking equipment where you need it — without the noise, space, or cost concerns. Choose from cabinets ranging from 12U to 42U.

www.black-box.eu/soundproof >

Customer Use Case: Jefferson Regional Hospital

Jefferson Regional Hospital asked Black Box to deliver a state-of-the-art integrated operating room video system to enhance and enable their surgical teams' capabilities to perform the latest techniques in laparoscopic, vascular, and cardiothoracic surgery. Black Box designed, configured, and provided a master DVI Matrix Switch to connect eight sources to eight digital screens with specially-cased Wizard SRX DVI-D Plus Transmitters and Extenders. Now surgery teams at the hospital have the video system they need to successfully perform complex procedures and ensure patient well-being.



Nowhere more than in retail environments is the potential to drive revenue by serving dynamic, hyper-targeted digital signage content quite so strong. Black Box offers digital signage and video wall solutions that give you the power to display the content you want where you want in real time to improve sales and awareness. Even better, our signage solutions boast perfect picture quality that's certain to capture any potential customer's attention.

Solutions



KVM Switching and Extension



Visual Communications and Wayfinding





Infrastructure

Connectivity



MediaCento

Create eye-catching, engaging displays with this video extender. It's scalable so you can add transmitters and receivers as you add sources and displays.

www.black-box.eu/mediacento >



MCX Advanced AV over IP

www.black-box.eu/mcx >

Deliver 4K 60 Hz 4:4:4 video and audio without sacrificing latency, video quality or bandwidth. MCX offers advanced features like seamless switching; zero source to display latency; and video scaling options, such as multiview, picturein-picture, split screen, and more.



iCOMPEL®

Create, manage, and update digital signage content easily with this digital signage system. Customise your in-store content by location. Ideal for use with edge-blending projectors.

www.black-box.eu/icompel 🕨



VideoPlex 4000 Video Wall Controller Standalone display wall controller/scaler that outputs high-resolution DVI video up to 4K to multiple monitors. Display content that informs your students, faculty, and staff of school events, emergencies, and more.

www.black-box.eu/videoplex >



Radian Flex

This software-based video wall processing platform lets you personalise your video wall to your unique application. Easily manage what, where, when, and how content is shown to your customers.

www.black-box.eu/radianflex >

Application Scenario: Retail

Digital signage technology allows you to add creative elements to your in-store experience, keeping your brand fresh and generating excitement for customers. In one such application for a Las Vegas event centre, the technology solution displays content over box office windows, on kiosks, and in the retail space, as well as over the entrance to a theater. The Radian Flex system can provide all of this functionality and more to any space. This advanced AV extension solution enables operators to direct content to displays located all over event centres with ease.



Industrial environments present much harsher conditions than those found in typical office environments. They have extreme temperatures, humidity, amounts of dirt and soot, and corrosive materials that can ruin IT equipment. They can also contain devices such as motors and mechanical switches, which cause a large amount of electromagnetic interference (EMI). Black Box has a large range of solutions designed to perform in the toughest environments.

Solutions



Redundant and Remote Networks



KVM Switching and Extension



Real-Time Data Visualisation



Video Extension



Industrial Ethernet Switches

This extensive range of hardened Ethernet switches provides reliable performance in demanding security/surveillance and automation applications. It includes managed, unmanaged, and PoE switches.

www.black-box.eu/ industrialswitches



iCOMPEL®

Unique application-based digital signage player stores data locally, ensuring you're covered if the network connection is lost due to extreme conditions.

www.black-box.eu/icompel >



Fibre Optic Cables

Make high-density connections that are immune to EMI/RFI interferences. Choose from a wide range of bulk, patch, and pre-terminated fibre optic cables.

www.black-box.eu/fibrecabling >



Industrial Media Converters

Choose from a wide variety of industrial media converters designed to provide the utmost performance in the toughest environments. They are ideal for extending the distance of copper devices such as IP cameras and wireless access points.

www.black-box.eu/industrialmc >



Industrial VDSL2 Bridge

The industrial-grade VDSL2 Bridge transmits data at 100 Mbps and offers quick, economical, and high-performance broadband/ multimedia services to industrial environments over 24-AWG phone wires.



Industrial Ethernet Extenders

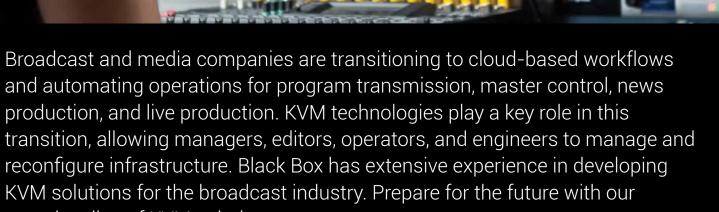
Provide an easy, inexpensive way to extend Ethernet over ordinary voice-grade copper wire to remote buildings and in surveillance applications for backhauling remote IP security camera traffic.

www.black-box.eu/ industrialextenders

Customer Use Case: ArcelorMittal

The world's largest steel producer, ArcelorMittal, needed to upgrade their wireless infrastructure to support their growing amount of equipment. They turned to Black Box, who implemented a new wireless technology solution that did not interfere with the already crowded Wi-Fi® frequencies on-site, making full use of the 60 GHz frequency band. The solution offers a stable point-to-point wireless network connection with high bandwidth and is comprised of high-performance antennas that can operate in different distance ranges if installed in the same directional axis. Since the installation, service is operating flawlessly without interruptions even during the most unexpected heavy atmospheric conditions.

Broadcast



complete line of KVM solutions.

Solutions



KVM Matrix Switching and Extension



4K Desktop KVM Switches



Video Wall Controllers

AV and Room Control



Emerald® Unified KVM

www.black-box.eu/emerald >

Optimise performance, reliability, and workflow efficiency in broadcast and postproduction with this KVM system. Delivers one converged system with pixel-perfect HD or 4K video extension over an existing or dedicated IP network. Connect users with both physical and virtual machines across buildings or around the world.



ControlBridge®

Achieve the highest level of automated room control with this room control system. Connect and control everything in your control room through one platform.

www.black-box.eu/controlbridge >



KVM Extenders

Get reliable remote access to critical IT assets in your production environment with our broad range of KVM extenders.

www.black-box.eu/kvmextenders >



4Site KVM Multi-Viewer

This KVM Multiviewer allows you to control and monitor up to four computers on a single screen. It supports digital HD video, USB, and audio signals and allows visualisation of all connected sources in four display modes: full screen, quad, picture-in-picture, and windows mode.

www.black-box.eu/4site >

Customer Use Case: WWE

World Wrestling Entertainment, Inc. (WWE) reached out to Black Box for a KVM system that could accommodate their production load in a massive facility that was prone to system breakdowns. Black Box installed a 288-port KVM switch, a 48-port KVM switch, and CAT6 cabling and connectors that gave the customer the high-performance KVM functionality and reliability they required. Since deployment, WWE has experienced significantly improved workflows, enhanced efficiency, and no system breakdowns.





Keeping transportation operations safe and on time comes down to having the right technology infrastructure in place. Black Box's comprehensive portfolio of connectivity products help you track every issue, delay, and emergency happening in transportation environments, such as airports, railway stations, subways, bus stations, and more in real time so operators can make instant, informed decisions to keep commuters safe and satisfied.

Solutions



Remote Air Traffic Control



Railway Automation and Connectivity





Passenger Monitoring

Passenger Information



Emerald® Unified KVM

The Emerald 4K KVM-over-IP solution was designed with 24/7/365 applications in mind. It provides network resilience at every level and is capable of supporting complete switchover to a backup control room for fail-safe operation with zero downtime.

www.black-box.eu/emerald >



Industrial PoE/PoE+ Ethernet Switches

Easily connect IP cameras, passenger information systems, and control units with these hardened PoE-enabled Ethernet switches. Choose between powerful managed switches or plug-andplay unmanaged switches.

www.black-box.eu/ industrialPoEswitches ►



Radian Flex

Flexible, scalable, future-proof video wall processing platform that gives you the power to control content and how it displays. Failsafe upgrades available to ensure performance in control room environments.

www.black-box.eu/radianflex >



Freedom II KM Switches Switch between multiple computers by moving a mouse from screen to screen. No software or additional networking required.

www.black-box.eu/freedom >



DKM Modular KVM Matrix

DKM is a proprietary (non-IP) highperformance KVM matrix switching platform that allows cross-point switching and extension of up to 4K video, peripheral, audio, and serial signals. The multilevel redundancy of the DKM family offers high reliability for 24/7 operation in critical environments.

www.black-box.eu/dkm >



iCOMPEL®

Keep passengers informed of arrival times and delays with this easy-to-use digital signage platform. Update in real time with ease to keep content accurate.

www.black-box.eu/icompel >

Customer Use Case: German Airport Operations Centre

A large German airport needed a matrix switching system to extend and switch multiple video and peripheral signal sources to different multi-screen operator desks. The system had to support 24/7 operations, central management of user access rights, and both CATx and fibre cabling. They decided on the highly-reliable DKM FX HD Video and Peripheral Matrix Switching system from Black Box that was made for 24/7 operations. The DKM system met all their requirements, improved functionality for operators, and increased job satisfaction and productivity.

WHY BLACK BOX

Expertise

Black Box project engineers can assist with system assessment, design, deployment, and training.

Breadth

Black Box offers the most comprehensive suite of engineered KVM, AV and infrastructure solutions in the industry.

Support

Reflecting our commitment to complete satisfaction, our dedicated team of highly trained support technicians is available by phone free of charge.

Service Level Agreements

Our service level agreements give customers access to technical support, product training, dedicated application engineers, and more.

Experience

Providing leading technology solutions since 1976, Black Box helps more than 175,000 customers in 150 countries build, manage, optimise, and secure IT infrastructures.

Warranties

Multi-year warranties with multi-year extensions and replacement options are available.

Centre of Excellence

Black Box offers a Centre of Excellence, featuring professional services and support agreements that help optimise customers' systems and maximise uptime.

