

Agility

Go farther, do more with digital KVM Extension and Switching over IP.

- » Single Link, Dual Link, or Dual Haed DVI, Audio, USB and serial.
- » Flexible Architecture:
 - KVM Point-to-Point Extension
 - Single Target Sharing
 - Multicasting
 - KVM Matrix Switching



ServSwitch Agility

Go farther, do more with digital KVM extension and switching over IP



*Agility Single Link DVI
Transmitter
(ACR1000A-T-R2)*

- Flexible KVM Extension and KVM Switching.
- Delivers perfect digital video:
Single Link up to 1080p at 60fps and RGB4:4:4
Dual Link up to 2560 x 1600
- No-loss compression minimizes bandwidth use while maximizing the user experience.
- Optimized extreme fast switching (< 1 second).
- Configure your network to suit your needs:
Point-to-Point extension, KVM Switching, Single-target sharing, or multicasting.
- Allows selective switching of the DVI, USB, audio, and RS232 channels.
- Offers link aggregation with 2GB or link redundancy.
- Features keyboard/mouse emulation, and virtual transparency for other standard Human Interface Devices, such as touch screens or flash drives.
- Distance is only limited within your LAN/CAN network.
- Various mounting options.
- Fanless design ensures silent operation.

Agility™ with DVI, USB, Audio, and RS232 over IP enables you to do more and go farther with perfect digital video over nearly unlimited distances.

The flexible topology of the Agility gives you application options that are brand new for KVM devices. The Agility can be a KVM Extender, a KVM switch, or a sharing portal. It's up to your application how you decide to configure it.

Choose between the ServSwitch Agility (ACR1000A-R2) with one single link DVI-D video channel, the Agility Dual DH (ACR1020A) with two single Link DVI and the Agility Dual DL (ACR1002A) with one dual link or two single link DVI video channel for computers with two digital video outputs.

The Agility features besides the RJ45 CATx link connection also a SFP slot that can be used to establish an inexpensive and fast point-to-point extension over fiber, a second redundant link or bandwidth aggregation with a throughput of 2Gb for high demanding video applications like RGB 4:4:4 or 1080p at 60 fps.

Switching Network

Turn your network into a KVM switch with the Agility. Create a KVM switching system with as many users as you want — just keep adding receivers for every user console. With mixed channels combine digital video, audio, USB devices and serial data from different computers. When you change channels on the receiver unit, you

switch DVI, audio, and USB to another source, while the transmitters not in use continue to emulate the previously attached console.

Single Target Sharing & Pooling

In this configuration, multiple users can share a single remote computer. Users can connect in three ways:

View-only shows only the video feed.

In Share Mode, an open connection is available for all users to use the connected devices at the same time.

In Exclusive Mode, one user locks out the other users, preventing them from viewing or sharing the connection, with the exception of network administrators.

Multicasting

This unique feature enables the Agility to reflect video and audio from a single computer over an IP network to several receiving units. To prevent saturating the network, an installed network switch should feature Internet Group Management Protocol (IGMP) snooping. This prevents an IP switch from passing on multicast data onto ports being not part of the Agility system.

Multicast content can be sent to as many receivers as you want with no distance limits within the network. This is an ideal configuration for digital signage applications.



Agility Dual Link DVI Transmitter front and rear view (ACR1002A-T)

Point-to-Point

In the most straightforward configuration, use the Agility as a point-to-point KVM Extender. Use CAT6 cable to connect a transmitter and a receiver to deliver perfect DVI video, audio in CD quality, and USB over distances up to 100 meters.

If you need cable runs longer than 100 m, add another standard Ethernet switch every 100 meters. You can add as many switches as distance is required. Alternatively larger distances can be realized over fiber optic connections by occupying the SFP-Slot with a corresponding fiber SFP.

You may even configure this setup to go to multiple screens at one time or add new Agility units for additional functionality.

Multihead Graphics and Control Desk Operation

Control Room setups and similar applications require multiple graphic heads to be switched simultaneously. The Agility allows to synchronously switch channels that are consisting of multiple video signals from either a single source computer or even multiple computers easily.

The selective channel configuration offers trading switch capabilities from only one single keyboard and mouse at a control desk monitoring various video signals from many sources.

Connection Reliability

ServSwitch Agility is perfectly designed for mission critical environments.

In a point-to-point connection, the link between transmitter and receiver will automatically re-establish again after a network disconnect or power shortage. In addition the SFP-slot can be used to establish a second backup link in 24/7 applications.

In a matrix setup with the iPATH Controller the function is similar! Even if the iPATH Controller is unavailable the previous link will be re-established after any kind of link loss and return.

Out-of-band access via VNC

The Agility Dual VNC (ACR1012A-T) features an additional management port that allows you to remotely access the Agility system via VNC down to the BIOS-level. This feature provides quicker service capabilities via WAN or the Internet further reducing potential downtime of the system.

Management system: iPATH

The Agility Controller units called iPTAH offer a management suite enabling you to remotely and securely configure all the transmitter and receiver units. Use iPATH to define new content channels, restrict and enable access privileges, disable specific USB device classes, and so on whenever you decide to configure a Agility switching system (iPATH is not needed for point to point extensions).

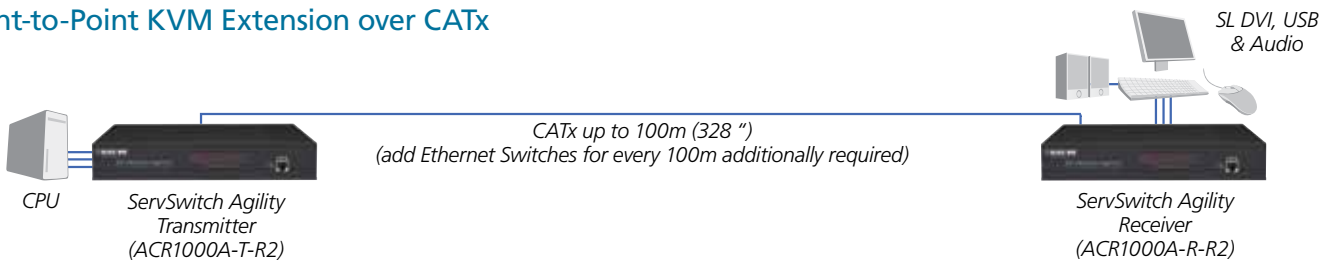
The iPATH™ system is a single box that plugs right into your network. Once plugged in, system administrators can begin configuring devices, users, and channels using a standard web browser. The iPATH interface features a useful on-screen dashboard that gives you a current overview of the system. It is continually refreshed so you always have the most up-to-date system information. The configuration of the various channels becomes a piece of cake. Choose from different iPATH sizes for 24, 48, 96, 192 or 288 endpoints. These can be upgraded via licences if you system grows.



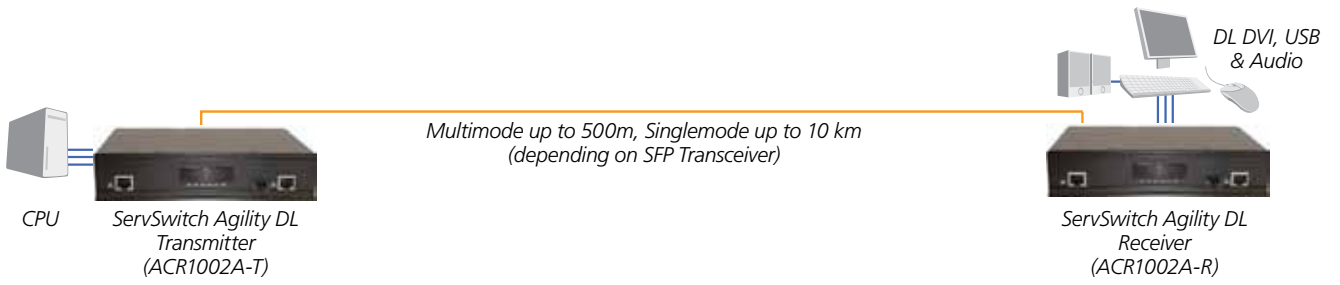
Agility iPATH Controller (ACR1000A-CTL-xx)

Application Examples

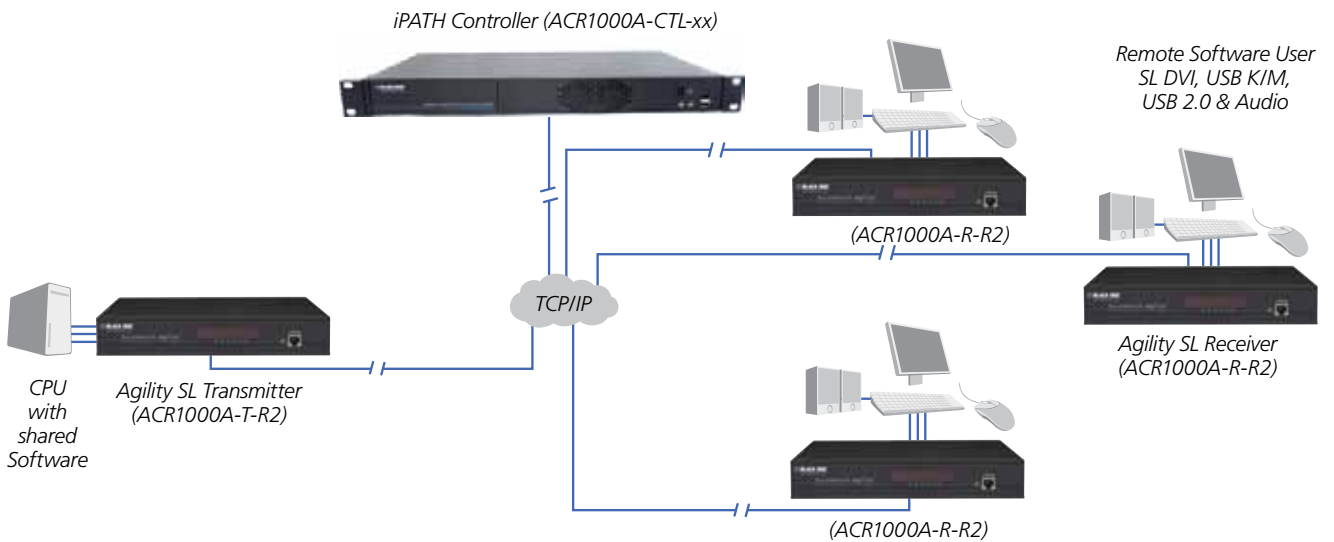
Point-to-Point KVM Extension over CATx



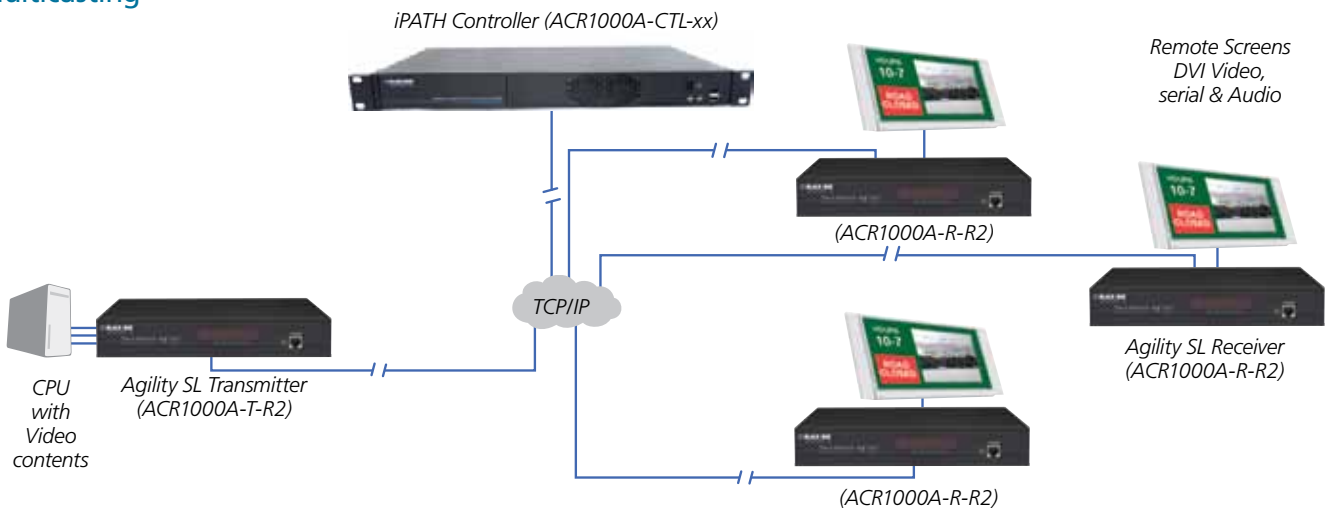
Point-to-Point KVM Extension over Fiber optic



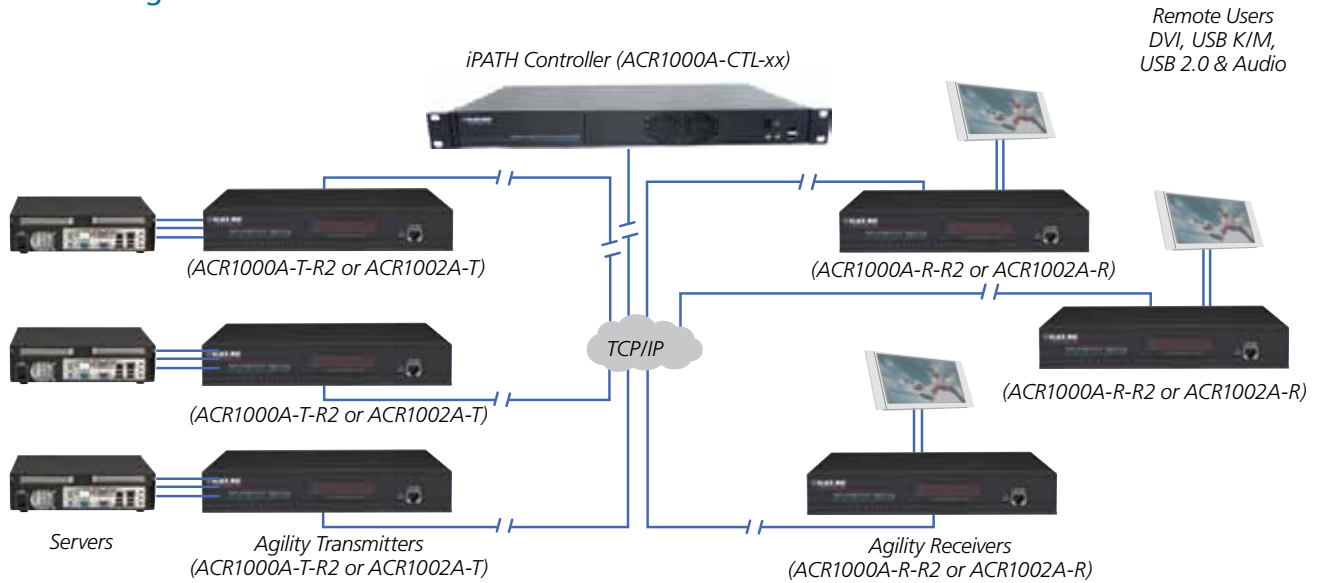
Single Target Sharing / Pooling



Multicasting



KVM Switching



Control Rooms

In command and control room setups, multicast video and data to receiver units between LCD display walls. Users can interact with any of the computers using separate keyboard, mice, and DVI displays.



Broadcasting

Media post-production suites become collaborative with the Agility. Machine rooms store the media assets and hardware, and can distribute them throughout a post-production facility. Editors, producers, and directors can instantly communicate with animators and colorists.



Healthcare

Distribute high-quality medical images to doctors and staff across large medical facilities. Agility uses standard Ethernet equipment, so the networking hardware won't need to be updated.



Digital Signage

Deliver rich media experiences in public spaces, such as museums or libraries. The flexibility of the system makes reconfiguring your implementation a snap.



Get real flexibility for your digital signage network. All you need is an IP network running through the installation, and you can easily deliver content from one playout device via DVI. The number of screens is up to you. Or, use the Agility to switch between multiple video sources.

Agility Solution Healthcare



A large medical centre had an urgent need for its surgeons and practitioners to be able to view high resolution images of x-rays, photographs and medical charts from its servers — as well as conforming to patient confidentiality and data protection laws — whilst still maintaining a completely sterile environment. Power supply fans inside PCs or Servers suck in air to cool down the processor, which means they are unsuitable for such an environment as germs and dust can easily gather. Cleaning them is also not practical as joints, holes and openings are common.

Black Box provided the solution by enabling the servers to be placed down the corridor in a secure environment, and using a ServSwitch Agility to extend the keyboard, monitor and mouse into operating theatres, x-ray and consulting rooms. Cleaning was now not an issue as the keyboards, displays and mice were of a medical standard ensuring they could be disinfected directly.

Agility Solution Broadcasting



A large TV Broadcaster was looking for a switching solution to optimise his playout process. All source computers are housed in a central computer room. 50 users (directors and assistants) in multiple control rooms should be able to access about 80 computers. A special attention had to be put on a very fast switching between the computers. For the highly concentrated work, the solution should work very quietly.

The customer chose the ServSwitch Agility due to its outstanding fast switching times. Using a TCP/IP network the Agility units connect the users within the various control rooms to the remote computers without loss in video quality. The Agility receivers in the control rooms operate very quietly without a fan. The Agility system can flexibly be adapted to future changes. The customer was particularly pleased as the Agility system turned out to be a very cost effective solution in comparison to other systems.

Agility Solution Video Distribution



A well-known advertising agency required a method of moving live video from a server in a data cupboard, up to a 103" screen in a large train station. The screen resolution was full high definition (1920 x 1080p) and the videos displayed were advertisements that needed to be displayed clearly and concisely, and without interference.

The Black Box Agility was chosen as the reliable method for transporting high resolution video across the train station, to the large screen. The Agility introduced no loss and transported the original video faithfully. Even on the large display, there were no signs of artefacts or anomalies.

Agility Solution Court Rooms



A court in West Palm Beach was looking for a control solution for its court session recording system. Data from five court houses within 36 km radius should be documented and recorded on DVR systems mounted in several cabinets within the control room.

The court chose the Agility system to connect the remote court rooms to the central recording system. All over 45 Agility transmitters send video, audio and microphone signals back to the control room. Ten supervisors got Agility receivers being fed into a ServSwitch 4Site and ServSwitch Freedom. This equipment assures not only a detailed documentation of the court sessions, each supervisor now easily navigates each incoming audio and video feed by moving his mouse around and he can hear the audio from the currently selected channel.

TECH SPECS

Connectors — ACR1000A-T-R2, ACR1002A-T, ACR1020A-T, and ACR1012A-T:
 Video: (1) DVI-D F; ACR1002A-T/ACR1012A-T/ACR1020A-T: (2);
 Audio: (2) 3.5 mm Audio jacks, input and output;
 USB peripherals: (1) USB Type B F;
 Serial: (1) RS232 DB9 M AUX port;
 Power: (1) 2.5 mm DC jack;
 Network: (1) RJ45, 1 Gigabit network connection (CAT6 ideal);
 (1) SFP slot 1.25 Gbps
 Management: (1) RJ45 for remote access via VNC or JAVA
 (ACR1012A-T only)

Connectors — ACR1000A-R-R2, ACR1002A-R and ACR1020A-R:
 Video: (1) DVI-D F; ACR1002A-R/ACR1020A-R: (2)
 Audio: (2) 3.5mm Audio jacks, line/mikro in, line out;
 USB Peripherals: (4) USB Type A F;
 Serial: (1) RS232 DB9 M AUX port;
 Power: (1) 2.5 mm DC jack;
 Network: (1) RJ45, 1 Gigabit network connection;
 (1) SFP slot 1,25 Gbps

Hardware Compatibility — all computers with DVI (digital only), USB, and Audio; Network Switches: IGMP Function recommended

Size — each unit: 4.4 H x 20.1 B x 12.2 T cm

Weight — each unit: 0,75 kg

What's included

Agility Transmitter

- (1) power supply with cord, 1.8m
- (1) or (2) Combo USB/DVI-D cable(s), 1.4m
- ACR1020A-T also: (1) DVI-D cable 1.4m
- (2) Audio cables 3.5mm M, 3m
- (4) self-adhesive rubber feet
- CD-ROM with Manual and Quick Starter

Agility Receiver

- (1) power supply with cord, 1.8m
- (4) self-adhesive rubber feet
- CD-ROM with Manual and Quick Starter

What's included

Agility Kit

- (1) Agility Transmitter
- (1) Agility Receiver
- (2) power supplies with cord, 1.8m
- (1) or (2) Combo USB/DVI-D cable(s), 1.4m
- ACR1020A also: (1) DVI-D cable 1.4m
- (2) Audio cables 3.5mm M, 3m
- (1) Serial null modem cable, F/F, 1.65m (Upgrade)
- (8) self-adhesive rubber feet
- CD-ROM with Manual and Quick Starter

Agility Controller

- (1) iPATH Controller Unit
- (1) power adapter
- Rackmount bracket

Agility

(1) Single Link DVI-D channel	Kit Transmitter Receiver	ACR1000A-R2 ACR1000A-T-R2 ACR1000A-R-R2
(2) Single Link DVI-D channels	Kit Transmitter Receiver	ACR1020A ACR1020A-T ACR1020A-R
(1) Dual Link DVI-D channel or (2) Single Link DVI-D channels	Kit, Standard Transmitter, Standard Transmitter, with VNC access Receiver, Standard	ACR1002A ACR1002A-T ACR1012A-T ACR1002A-R
Mouting Options		
19" rack-mount kit for (1) Agility transmitter or (1) Agility receiver		RMKT2004
19" rack-mount kit for (2) Agility transmitters or (2) Agility receivers (1U)		RMK2004-2
VESA, wall or table mounting kit		ACR1X-VESA

iPATH Controller Appliance

up to 24 endpoints		ACR1000A-CTL-24
up to 48 endpoints		ACR1000A-CTL-48
up to 96 endpoints		ACR1000A-CTL-96
up to 192 endpoints		ACR1000A-CTL-192
up to 288 endpoints		ACR1000A-CTL-288
	24 to 48 endpoints	ACR1000A-UPG-24
	48 to 96 endpoints	ACR1000A-UPG-48
	96 to 192 endpoints	ACR1000A-UPG-96
	192 to 288 endpoints	ACR1000A-UPG-192
Upgrade licences		

You'll find at Black Box

The right products, the right support, and the right pricing.

Comprehensive KVM extension and switching, audio/video, multimedia, and networking solutions.

Get the objective advice you need, the industry-leading technology you want, and the real support you can count on from Black Box Network Services.



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» Splitters

» Video Switches

» Converters

» LCD & Plasma Screens

» Cables & Connectors

» KVM Switches & Extenders

» Display Controllers

» Media Storage Devices

» Media Cabinets & Racks

» Installation Services

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