BLACK BOX

CASE STUDY
SOLUTION INTEGRATORS

Agility Solution Secures and Updates Legacy KVM Installation

THE CHALLENGE

A long-standing Black Box customer in Sweden needed to update an existing ServSwitch Octet installation. The customer knew that their existing ServSwitch Octet had limited expansion capacity and their large assortment of new and legacy Black Box equipment meant some of their infrastructure was no longer supported. To add to their concerns, they needed to update their existing network to maximize security, comply with tough standards, and improve workflows.

Encouraged by our track record, the customer naturally called Black Box when they had a requirement to upgrade their existing system to a newer secure platform. They reached out to Black Box to assist in finding a modern KVM system that could support their legacy servers with only VGA, without compromising security, while also supporting servers with both DisplayPort and DVI interfaces.

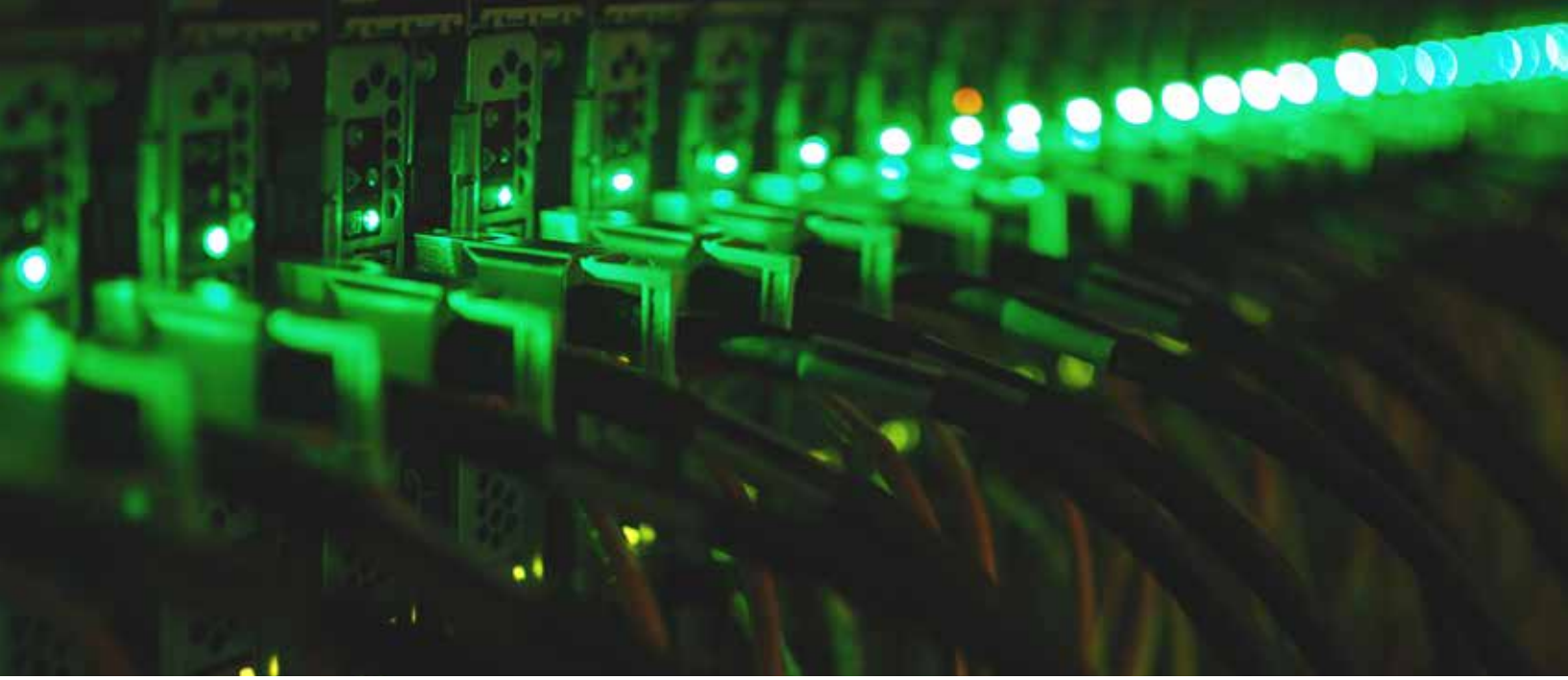
Another challenge the customer faced was limited rack space. Rounding out their requirements, the client's prerequisites included the stipulation that different servers on different networks could not interact with each other, and network switches needed to separate the different servers in red and green areas (red=secure network and green=public network). A Secure KVM solution from another company was not within their budget.

THE SOLUTION

The customer considered a TEMPEST Secure KVM switch, which provides direct user and computer connections with air-gap isolation to prevent data leakage. To follow its strict protection profiles, TEMPEST also limits use of certain peripherals. Secure KVM Switches are available with up to 16 ports and 4 users, too little for the customer's application.

To accommodate the customer's need for more computer and user ports, Black Box experts recommended Agility, a KVM over IP system that supports VGA and digital video. While it doesn't support the strict requirements of a TEMPEST Secure KVM Switch, Agility can be configured with strict user access rights and routes, which allowed the customer to also separate the servers with confidential information from the public systems.

This traffic router in combination with user authentication matched well with the customer's security requirements, removing the need for a Secure KVM System in favor of a larger, scalable KVM over IP system. The Agility solution addressed the customer's desire to use existing VGA monitors, while futureproofing the system to support a wide range of video interfaces (DP, HDMI, DVI, VGA) on both user and server sides, including multi-monitor user consoles.



THE SOLUTION (CONTINUED)

Agility further met the client's security requirements as the only system that can manage VGA servers without using converters, which is critical to maximize security. Agility connects to old VGA servers as well as newer servers with digital video, while the user can use any monitor, even state-of-the-art dual monitors.

The customer had limited rack space, and Agility ZeroU Server Access Modules don't require additional rack space in the customer's dense server farm.

The KVM over IP solution proved to be a flexible and scalable system that seamlessly connects to the customer's current servers and users but can also easily adapt to future system growth and upgrades. The total solution was for 275 target servers (with VGA, DisplayPort, and DVI) to 30 users and various Agility Controllers and network switches. By selecting a larger KVM over IP system, the customer's network was able to handle the higher volume of computer and user ports needed. Finally, the Agility solution met the customer's need for red/green network separation in accordance with their security requirements

THE RESULT

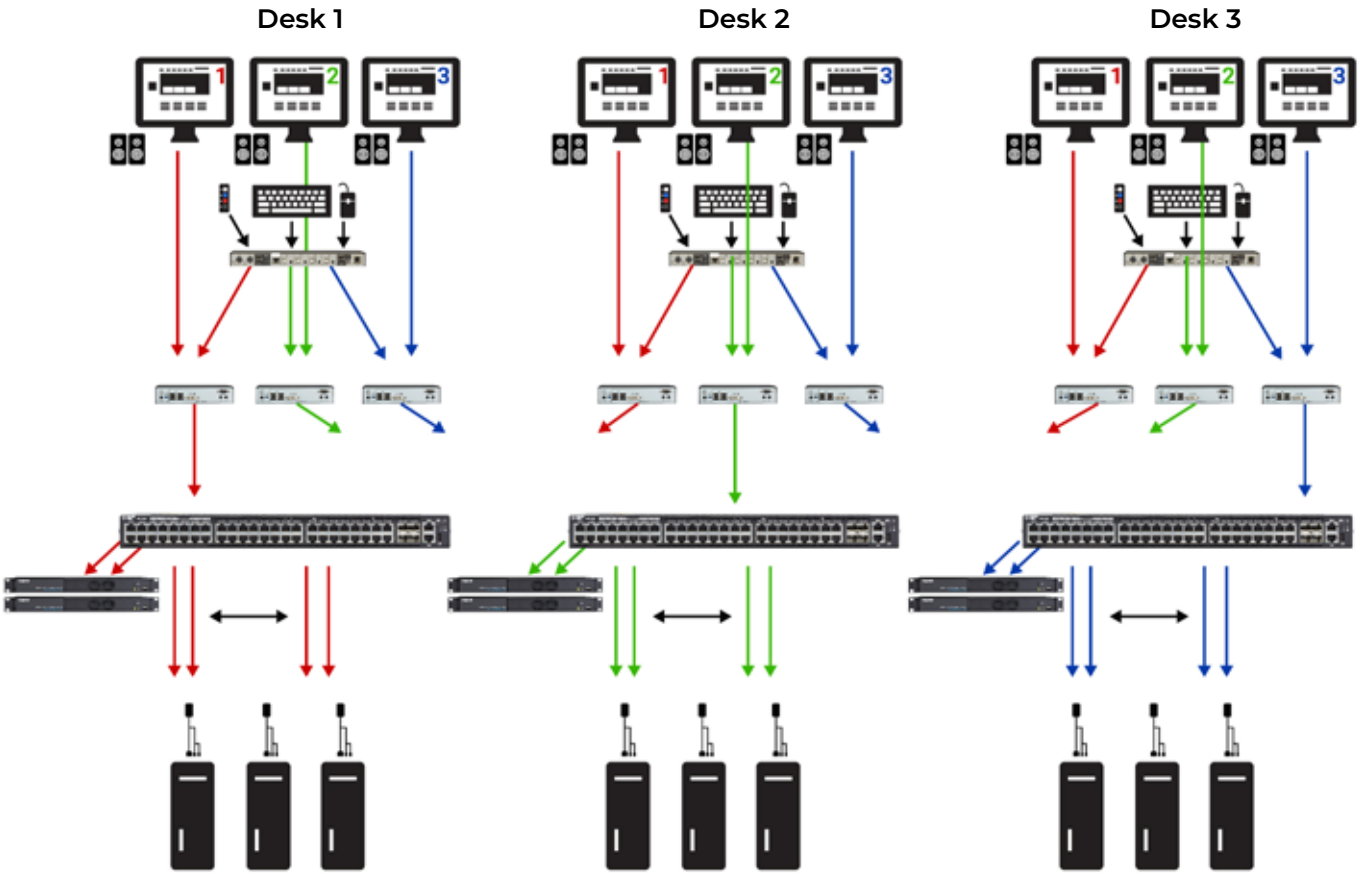
The customer now is able to securely manage their server farm with a mixture of new and older servers. While the servers are securely locked in a server room, the customer can access them from different workplaces. Multiple users can collaborate by working simultaneously on selected target servers.

With their enhanced KVM solution, the client improved response times during crucial situations with new streamlined workflows and operations providing a much better overview of their system with faster server access. The workers' desktops are less cluttered and more ergonomically designed, since operators have only one keyboard and mouse to access multiple servers while monitoring them on multiple monitors.

The IP based solution supports mixed HDMI, DisplayPort, DVI and VGA servers, so the customer saved the expense of completely replacing existing VGA equipment. With an eye toward the future, the customer even purchased an additional 50 Agility Server Access module units that they plan to use for future expansion. The customer will likely request similar solutions for other parts of their organization. Because the solution is network-based, the expansion capacity is virtually limitless, and the system will be easy to expand using IP technology.

APPLICATION DIAGRAM

In the deployed solution pictured here, the customer's network is separated into three secure networks. The red network is #1, the public network is #2, and the admin network is #3. The red, or secure, network cannot communicate nor interfere with the other networks, and is protected from viruses and tampering. To switch between networks, the customer simply presses a remote control pushbutton.



ABOUT BLACK BOX

Black Box® is a trusted IT solutions provider delivering cutting-edge technology products and world-class consulting services to businesses across the globe in every industry. The breadth of our global reach and depth of our expertise accelerate customer success by bringing people, ideas, and technology together to solve real-world business problems.