

Optimizing the Control Room

Multi-utility company A2A Reti Elettriche Spa deploys Matrox Extio KVM extenders providing operators strong workstation performance and better working conditions

By Stephen Choi, Matrox Graphics Inc., and Modesto Lauro, A2A Reti Elettriche Spa.



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Summary

A2A Reti Elettriche Spa, a company within the leading Italian multi-utility group A2A S.p.A that manages the gas, water, and energy distribution for many provinces in northern Italy, selected Matrox Extio Series dual- and quad-display KVM extenders to remotely drive 19 multi-display operator stations in their new control room center. After successfully meeting the deployment's stringent remote extension criteria, A2A employed the Extio solutions to address system noise, heat, and dirt issues, while leveraging its bus extension technology so operators can run Supervisory Control and Data Acquisition (SCADA) system software across multiple monitors without any image quality, latency, or system performance concerns.

The Challenge

As part of the original control room design for its Brescia facility, A2A carefully outlined the floor plan to sufficiently include 19 operator workstations. Despite a straightforward implementation, the multi-utility company quickly ran into unexpected issues that required immediate attention.

First, the large number of workstations significantly increased noise and temperature levels, adversely affecting working conditions and operator comfort. Next, IT staff noticed that the new workstations easily attracted dirt, impacting the system's performance and reliability, requiring increased maintenance efforts.

After exploring a number of operator-based solutions, including specialized cases that proved too cumbersome for the existing office furniture, A2A concluded that a remote extension technology was their best option—one that could manage the above issues, but also provide stable and reliable multi-display image quality from a distance. Furthermore, cabling from the extension solution had to be at an absolute minimum to accommodate the current infrastructure of two lateral areas with a single floating floor.



A2A operators benefit from uncompromised workstation performance on up to four displays.

The Solution

Attending the BIAS automation tradeshow in Milano, Italy, A2A dropped by the Matrox booth for insight on their split-computing technologies and discovered the Matrox Extio: a KVM extension solution that drives multiple monitors and user devices at the operator station while being separated by the computer via fiber-optic cable.

After securing and successfully validating the Extio evaluation unit, A2A found this solution measured up flawlessly with their control room requirements. Installed discretely on small shelves at each operator station, the fanless Extio unit drives up to four DVI displays, keyboard, mouse, and speakers using a single 20 meter (65 feet) fiber-optic cable to connect remotely to a Matrox interface card within the PC. With the Microsoft® Windows® XP Professional workstations committed to a separate temperature-controlled server room, operators benefit from reduced noise and uncompromised workstation performance—at resolutions of 1600x1200 per display—to run their ARC Informatique PcVue, Siemens FactoryLink™ SCADA, and Selta/Sdi eXpert SCADA applications.

The Result

The renovated A2A control room now features a total of 17 Extio F1220 dual-monitor and two Extio F1400 quad-monitor Remote Graphics Units, which are being used alongside a large-scale collaborative display wall to manage various networks and process control applications. The Extio units not only facilitate a more suitable work environment for system operators, but also empower A2A with an advanced KVM extension solution to optimally configure their mission-critical environment, both inside and outside the control room.

"Our staff immediately appreciated the new silent workroom, while from an IT standpoint, the Extio addressed the operator workstation maintenance issues, reducing the number of interventions required to obtain the highest service continuity," said Modesto Lauro, System Manager, A2A Reti Elettriche Spa. "What's most impressive is that the bus extension provides system performance that is exactly like having the workstation right at your desk. We're clearly pleased with the results."

For More Information

The Matrox Extio Series is ideal for environments requiring data security, low heat emissions, no noise, and more workspace. Contact Matrox Video to learn more.



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