Sabesp Selects Emerald and Boxilla KVM over IP Matrix System for Its New Control Room

sabesp

Client:	Sabesp
Region:	Brazil
Industry:	Government, Waste Management
Solution:	Emerald/Boxilla

BACKGROUND

Sabesp is a Brazilian water and waste management company owned by the state of São Paulo. It provides water and sewage services to residential, commercial, and industrial users in São Paulo and in 363 of the 645 municipalities in São Paulo State.

Sabesp launched a public bid to build its new command operation and control room from scratch, and a large engineering integrator won the project as a whole. Sabesp reached out to Black Box after the integrator encountered difficulties finding a solution that meets all requirements for the KVM matrix system.

THE CHALLENGE

A Control Room is the center of your organization's operations. With an efficient structure, a control room enables you to plan, manage, analyze, and even recover day-to-day activities. In the control room, employees need instant access to information and communication to successfully manage situations. When employees work offsite, they need to access control room servers with the same speed, efficiency, interactivity, and flexibility as if they were working onsite.

To support these user needs and to improve overall productivity, Sabesp wanted to implement non-fixed user stations for the operators so they could work from anywhere. Reliable graphics and USB performance are a must, along with a seamless switching experience for the end users. The solution additionally needed to support USB webcams and USB headsets on all user stations.
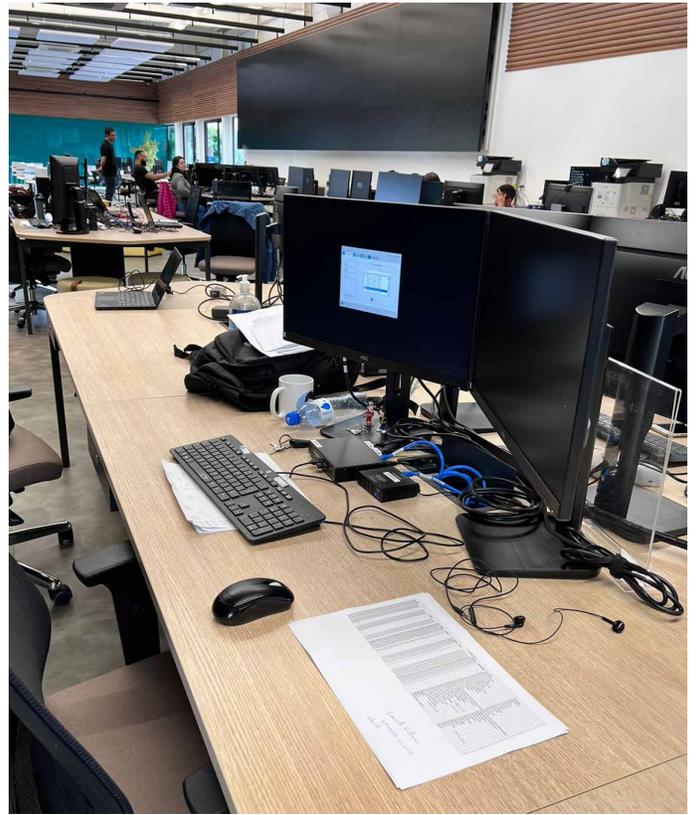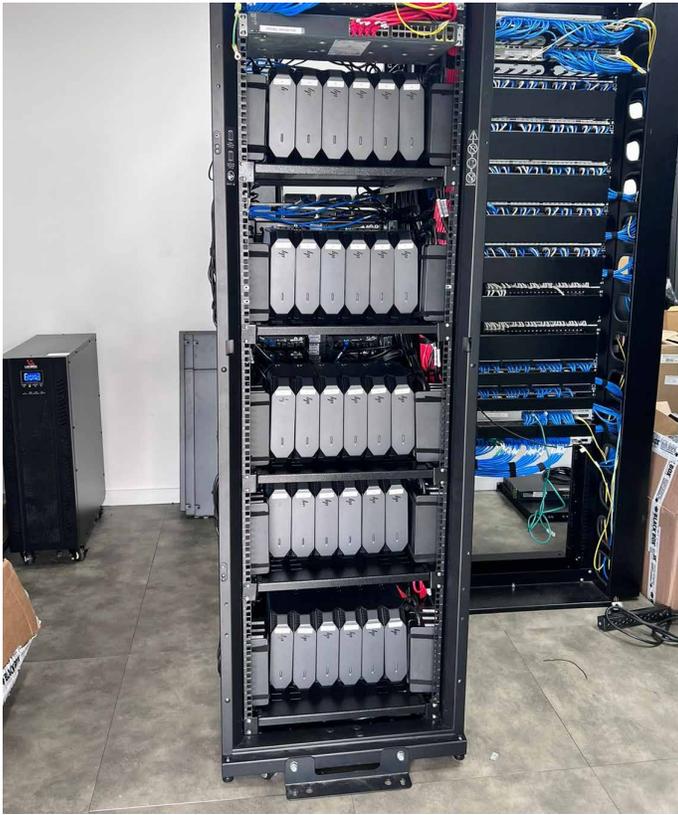
The key requirements included performance, management, and flexibility. The system must perform to replicate the same experience as if the users were operating locally. Management integration with LDAP was a big factor in allowing the users to log into the system using the same credentials they use for their computers. The solution needed to be flexible to provide a way for users to access their computers through whichever position they want without any restrictions.
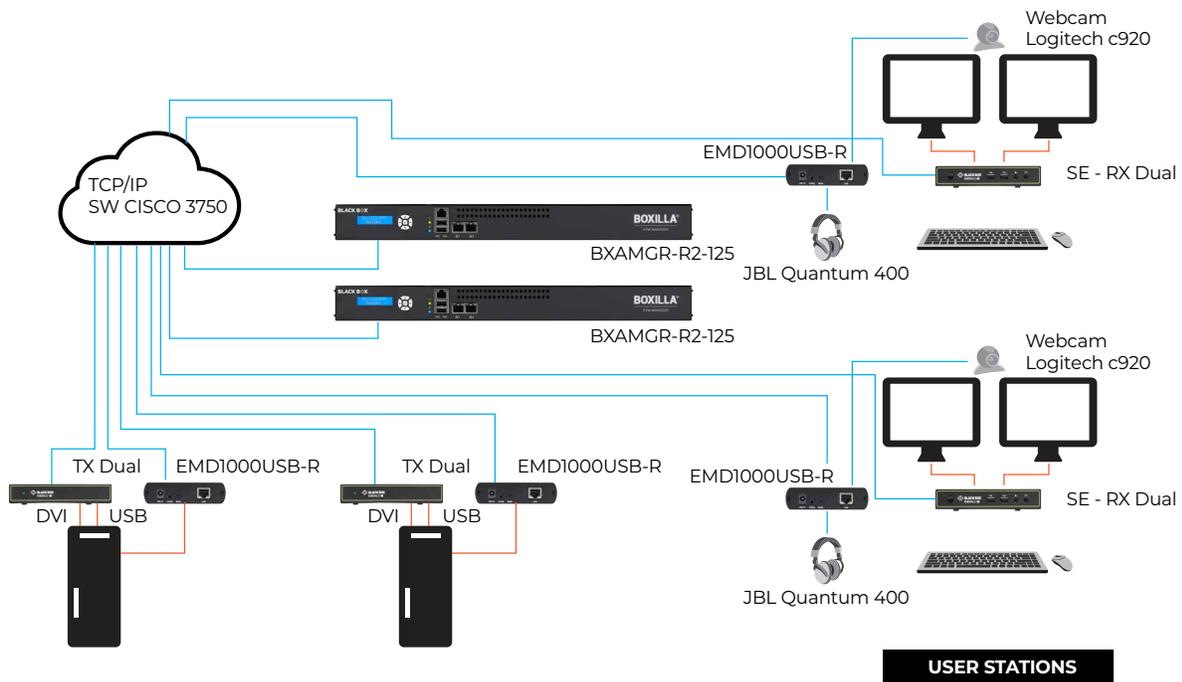
THE SOLUTION

Black Box Sales Representative Gilson Leonardo worked with the integrator to propose an IP-based KVM matrix solution for the control room setup. All 30 user stations have two monitors, webcam, USB headsets, keyboard, and mouse as a standard. Each user station can connect to each of the 30 remote servers over an IP network through Emerald SE Dual DVI receiver and transmitter units. Additional Emerald full-speed USB extenders at each endpoint provide the necessary bandwidth for the USB 2.0 connectivity. Two redundant KVM Boxilla Managers are used to monitor and control the complete system. The idea is to have Boxilla with integration with Active Directory for user rights policy, and receivers providing a seamless experience as if the users were directly connected to their CPUs. Users can work anywhere they desire, fully meeting the flexible office requirements.

Before going forward, the integrator and Sabesp were invited for a demo at Black Box to exhibit all features and USB capabilities of the Emerald solution in addition to webcams and headsets. After the demonstration, they were very excited and impressed by the features and performance of the Emerald KVM extender control room solution.

The final configuration is illustrated below on page 2.

Emerald KVM over IP - Connectivity Scheme

Webcam
Logitech c920

EMD1000USB-R

SE - RX Dual

TCP/IP
SW CISCO 3750

BOXILLA

BXAMGR-R2-125

JBL Quantum 400

BOXILLA

BXAMGR-R2-125

Webcam
Logitech c920

TX Dual   EMD1000USB-R   TX Dual   EMD1000USB-R   EMD1000USB-R

SE - RX Dual

DVI   USB   DVI   USB

JBL Quantum 400

USER STATIONS

THE RESULT

The KVM over IP matrix is installed in an area called Strategic Cognitive Management; it's been performing very well so far and provides workplace flexibility to all users so they can work from anywhere they want.

Because all CPUs are placed in a cabinet, noise and heat are greatly reduced. And, the CPUs are securely locked in a protected data center with limited access and environmental controls. In the data center, organization, maintenance, and repairs are convenient.

The system delivers an enhanced user experience with transparent USB 2.0 support for webcams and headsets. Users are now able to access multiple computers from one receiver, and enjoy a clean and organized workspace at the desktop.

Sabesp was pleased that the Black Box solution exceeded their expectations, especially in terms of mobility, security, and performance. Today, users have greater mobility and can work from anywhere without compromising any features.

Overall, Sabesp now benefits from mobility, flexibility, easy management, service, relationship, installation, and training. The company is impressed with the system's performance: there is no impact on the network whatsoever, and both audio and video perform as if they were directly connected to the computer.

> " The KVM-over-IP Emerald solution from Black Box fully met the need to provide our employees with a modern, dynamic and agile environment, facilitating access to workstations. The company provided services in all the implementation phases and the result was excellent.
>
> **Alexandre Domingues Marques -** Manager of the East Operation Engineering Department - MLE

> " Our need was to provide a modern environment with an agile and flexible way of working, where the teams could change the dynamics of action without having to make physical or logical changes in access to workstations and desktops. This was only possible with the application of KVM-over-IP Emerald technology, a Black Box solution that met all our needs with high performance and connectivity resources, in addition to the quality of services, from the first call to installation, training and after-sales. "
>
> **Silvio Rocha da Silva,** IT Manager at Sabesp

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