Case Study

SIG SERVICES INDUSTRIELS DE GENEVE

Canton Geneva, Switzerland

Branch

Energy & Utilities

Project

As part of a major infrastructure project spanning several years, SIG refurbished their control center for the power distribution system in Geneva, making it easier, safer and more efficient for dispatchers to respond to incidents.

Photo: A. Argand

Client

SIG is a Swiss public infrastructure company established in 1896. Majority-owned by the Canton and City of Geneva, its revenues exceed CHF 1 billion per year. SIG serves 265,000 clients providing drinking water, gas, electricity and thermal energy, and managing wastewater and waste recycling. SIG also offers energy and tele-communications services. All SIG activities seek to promote smarter energy consumption within a framework of sustainable development.

Background

SIG maintains multiple control rooms in the Geneva area, including one which is used to manage the power distribution network on a 24/7 basis. Here, operators monitor and maneuver the distribution grids, control city lighting, monitor security for personnel and facilities and respond to client calls outside of business hours.

Photo: A. Argand

Large screen display consisting of rear projection cubes for continuous use. In the foreground the multi-functional keyboard WEYTEC smartTOUCH.

When the SCADA system for prcess management needed to be renewed and an aging plasma video wall was suffering from the so-called "burn-in effect", SIG decided to modernize the entire control room and create a more ergonomic office environment for their dispatchers.

Challenge

This SIG control room manages the energy distribution network for a quarter of a million customers consuming over 2,800,000 GW/h per year. When a power failure occurs, the center can be flooded with alarms and incoming calls. The dispatcher's job is to avoid and/or minimize interruption of power, analyze and localize problems, dispatch construction and maintenance teams, communicate with the customers and most import-antly, keep a cool head and avoid all mistakes that could negatively impact an outage.

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Solution

WEY Technology deployed a new fully integrated control room solution based upon the WEYTEC distribution PLATFORM. The room features two high-performance operator workplaces with WEYTEC smartTOUCH keyboards, a video wall and an adjacent reception area / conference room. PCs and other sources are housed in a centralized and cooled system room, eliminating heat and noise from the control room. Enhanced ergonomics helps to keep stress levels down during an incident. The scope of the project also included new height-adjustable technical furniture, an intelligent lighting system, and newer but fewer desk screens.

User Experience

WEYTEC smartTOUCH multifunctional keyboards enable the operators to control all their information sources, alarms and workflows with a single user interface. Customized keypads feature buttons to directly respond to audio and visual alarms on the WEYTEC smartTOUCH and the video wall. This streamlines workflows in an emergency and ensures the speed and accuracy of the operator's response. A CCTV feed in the WEYTEC smartTOUCH display shows the secured entrance and incoming visitors. Without leaving their working desk, operators can identify the person and open the door by simply pushing another button on the keypad.

Photo: A. Argand

WEYTEC smartTOUCH:
The multifunctional keyboard with customized key pads to the right and left of the keyboard screen.

Video Wall

WEYTEC delivered a 3x2 60" rear-projection eyevis SlimCubes video wall which is perfectly suited to 24/7 control room environments. The super-slim, space-saving video wall is mounted in the corner of the room leaving plenty of space for a server room behind the screens. The graphic controller makes it possible to freely place, position and scale any PC image on the video wall. Fully integrated with the WEYTEC distribution PLATFORM, the video wall can be controlled from any workplace using the WEYTEC smartTOUCH keyboards, and all the presets are programmed as soft keys in the touch screen.

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Benefits

Some key benefits for SIG was the ability of the WEYTEC solution to integrate "historical" and new functionalities, integrate I/O interfaces of the alarm management system and other third party systems and control it all with the WEYTEC smartTOUCH keyboard and video wall. According to the Operations Engineer responsible for dispatching, "In the previous room, we had a panel showing the alarms and a box with a button to stop the alarm sound. When I first saw the WEYTEC demonstration with customized banners for alarming on the videowall and the merging of different buttons in the keyboard, I thought it was great and exactly what we needed. It is an ergonomic plus, neat for industrial environments, and yes, everything works fine."

Testimonial

The client further notes: "The WEYTEC system is whole and is not an assembly of parts from different manufacturers. It is more compact and faster to put together. It saves time and money and technically, I think this is better. It also permits us to have less screens and machines around, which makes the room clean, spacious and agreeable. Less heat and noise are dispersed in the room. We are glad to have left the 20th century control room behind us."

Facts & Figures

WEYTEC distributionPLATFORM
- 2 Operator workplaces each with 6 screens
- 1 Reception Area / Conference Room Position
- 10 Sources

User Experience
- 3 WEYTEC smartTOUCH multifunctional keyboards

Vido Wall
- 3x2 60" Slim Cubes
- Graphic Controller

WEYTEC smartCONTROL
- IP I-O cards for Alarming and Building Management

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