

Nial Anderson takes a look at the InAVation Award winning project undertaken by Polymedia in Kazakhstan.

All under control

INAVATION[®]
AWARDS 2015
PROJECT WINNER



Main room of Situation Center

The Kyzylorda oblast - a part of Republic of Kazakhstan - is marked by its vast geographical distribution of cities and their remoteness from regional centres. Governed by the Kyzylorda akkymat administration, the area's economy is dominated by the oil and gas industry, uranium mining and agriculture.

Last year the administration created a situation centre to improve the local government's efficiency by creating an information hub using AV technology. The vision behind the centre was to provide decision makers with a broad range of information from the region and offer a comparison analysis with other regions of the republic.

Russian integrator Polymedia was tasked with delivering the project and brought together a significant hardware and software solution to meet the administration's aims.

The main areas for hardware to be installed was in the situation centre's main room, the analytics room and the operator's room. A videoconference system

was also installed that connects the Center with seven regions of Kyzylorda oblast at a distance up to 500km away to improve communication with them.

Tech-Spec

Audio
Extron speakers and power amps

“ The Situation Center will become a powerful tool for controlling and managing activities of our oblast daily living. ”

- Deputy Chief of Staff R. Ormagambetov

The facility also boasts a mobile component using a Polycase workstation and satellite communication terminal that provides hot link communication in emergency situations. IP cameras integrated with a situation room have been deployed at critical sites that allow them to be monitored in real time.

The nerve centre of the facility - The Main Hall - is where managerial decisions are taken. There is a meeting desk for eleven seats: ten for delegates and one for a chairman. Each seat is equipped with a 17" Arthur Holm motorised display that can function both as a repeater screen or a full featured PC. The displays are centrally managed by an operator through an integrated control system.

All working places at the meeting table are equipped with Bosch DCN congress consoles with a simultaneous interpreting channel selector. The devices are neatly built in the table thus providing maximum functionality

without obstructing free space for paperwork.

The hall is equipped with four high resolution cameras with automatic guidance that are used by various systems such as logging, videoconferencing and technological video surveillance. Near the table an interactive rostrum is located with a built-in congress system clicker and 22" interactive tablet allowing the user to launch and annotate presentations as well as other materials displayed at the hall videowall.

The video wall in the main hall consists of Mitsubishi VS-70HEF projection cubes in 4x2 configuration. Front access to the videowall saves up to three sqm of room space. Polymedia chose the product for its endurance with an expected 100,000 running hours, high brightness of up to 810Cd/m2 and an inter screen clearance of less than 2mm. Meeting participants also can see three 55in repeater displays with the same



< information as the video wall including videoconference broadcast, internet and data from various hardware and software sources. A simple and user-friendly Polywall visualisation suite allows controlling information mapping at the video wall and displays.

The main hall also offers simultaneous interpreting system helping observers who don't participate at meetings to better understand speeches at international events held at the SC.

At the SC main hall there is an operator workstation designed to control visualisation and an integrated control system interactive display. Such a configuration provides efficient and easy control over all the equipment from adjusting room illumination to demonstrating content at motorised displays.

The analytics room is equipped with a videowall, twelve analysts' workplaces with a PC and two monitors each, as well as an operator workstation for preparing content and scenarios of events held in the Center. Content from any analyst's workplace can be shown at the videowall that consists of Mitsubishi Electric LM55S1 thin frame displays in 4x2 configuration; identical to the videowall in the Center's main room. Front access to each videowall module is provided for the sake of serviceability, and the room sound system allows all in attendance to handle content and hear everything that goes on at the main hall. Some desks at the hall are equipped with access doors to Extron interfaces that allow the connecting of mobile devices.

The centre's instrument room is divided into two parts

– the tight zone and simultaneous interpreter booths. In the tight zone there are three racks that each serve a separate integrated system of the project. They are a video switching facility and Polywall 5000 visualisation system controller; a rack with integrated control systems; and a rack with sound equipment.

The Interpreter room has a working space with two simultaneous interpreter booths equipped with an interpreter console, a monitor showing an active camera video of a current speaker that allow observing events in the main hall and watching speaker gestures.

The hall is equipped with high tech acoustical facility including professional loudspeaker system based around a Biamp Tesira digital platform with echo suppression function and Extron power amplifiers and loudspeakers.

A significant part of the project involved the creation and deployment of software to manage data visualisation on the videowalls and displays at the Centre. This allows users to create meeting scripts and configures information windows at the main hall videowall in according to the matters under discussion. While holding a presentation to the Prime Minister of the Republic of Kazakhstan, for example, layouts of three, five and eight windows were used with synchronous information display at personal workplaces, akkym workstation and monitors of meeting participants.

Polymedia supplied its own Polywall software to control digital signage and support meetings, boards, conferences and business venues at control centres and situation centres. The software's program suite is a tool for visualisation control, multipath meeting scripts as well as software and hardware in-process management.


There are 21 employees at the Situation Center including technicians and analysts who finished a training program specially developed by Polymedia for situation centres personnel.

Polymedia had to overcome a number of challenges in completing the project, not least the project implementation of a month and a half. While the timeframe in itself may not seem so short, Polymedia was forbidden to make any noise during working hours because executive offices were located in adjoining rooms. 'Working hours' sometimes lasted until to 2300 so company personnel had to work at night much of the time.

The location of the Situation Center also posed a challenge as it was situated more than 1,000 km from cities which complicated the installation process, especially in regard to deploying videoconference systems at local regions.

Elena Vinokurtseva, head of Polymedia's PR department, said: "As the project was developed for the regional government, the priority in choosing the equipment was evident - quality and ease of use. The Situation Centre, as the customer sees it, must be a universal tool for managing the region in the daily operational work and in crisis situations, so the equipment must be fail-safe and work at 24/7 mode and have the highest performance in its class. Besides, as experimenting is out of the question, we have chosen only the tried and tested equipment.

"Given the importance of the project, our team included not only AV and IT engineers but also the experts and consultants on economics, government management, design of decision-making centers, ergonomics and data visualization, professional analysts, programmers, testers and designers of IAS interface."

"The newly implemented Kyzylorda akkymat Situation Center has no equivalent in the Republic of Kazakhstan," said Deputy Chief of Staff R. Ormagambetov. "Due to its technical and information support the Situation Center will become a powerful tool for controlling and managing activities of our oblast daily living." 

Tech-Spec

Video

Arthur Holm motorised displays

Biamp Server-IO digital network server

Bosch DCN multimedia Conference System

Cisco network switches

Crestron DigitalMedia 32x32 matrix, Digital Graphics Engine, Control System, touch screen display, transmitters and receivers

Extron DVI distribution amps and cable retractors

Lifesize videoconferencing system

Mitsubishi 70" projection video module and 55" thin frame display wall mount

Opticis detachable DVI extenders

Polymedia interactive displays, videowall bases and VC camera shelves