

Kyzylorda akkymat Situation-Centre, Kazakhstan



Kyzylorda oblast is a part of the Republic of Kazakhstan, located in the southern part of the country eastward of the Aral Sea. As well as the famous Baikonur spaceport, the region hosts a thriving oil and gas industry, and other important activities including uranium mining and agriculture. Kazakhstan is the largest land-locked country in the world, and the ninth largest overall. For government authorities, the vast geographical distribution of cities and their remoteness from regional centres creates significant administrative and communication challenges.

Background

Given the vastness of the country, technology has a key role to play for both the day-to-day administration of the region, socio-economic planning and the government's ability to respond effectively to situations which may arise. In January 2014, work began on a new situation centre (SC) for the regional authority of Kyzylorda, designed to create a central facility to enable the sharing of complex information, comparative analysis with other regions of the Republic of Kazakhstan as well as providing an advanced intelligence centre to support key decision making. This major project was undertaken by Russian systems integrator Polymedia and its local subsidiary, Polymedia-Kazakhstan.

INAVATION[®]
AWARDS 2015
PROJECT WINNER

PROJECT LOCATION

Kyzylorda oblast, Kazakhstan

CUSTOMER

Kyzylorda akkymat administration,
Republic of Kazakhstan

APPLICATIONS

Government
Situation Center

PRODUCTS USED

8 X VS-70HEF78UA
8 X LM55S1

INSTALLATION

Polymedia and Polymedia
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FURTHER INFORMATION

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Problem & Solution

The project consisted of the SC Main Hall, an Analyst's Suite, Operator's Room and Server Room. The Kyzylorda regional administration, which commissioned the project, wanted a fully-integrated solution from a single provider with significant experience with situation centres. The multi-award winning Polymedia was an ideal choice. The project was to employ state-of-the-art audio-visual equipment from leading global manufacturers, with system reliability and ease of operation as high priorities. The system had to be able to integrate with existing information systems currently deployed regionally and across the Republic of Kazakhstan, and offer secure online access to systems operators. The software aspect of the project also included databases and analytical tools to aid information gathering, planning and reporting.



As well as the scale and complexity of the project, the location of main site and its satellite videoconference sites, which were in some cases more than 500km from the SC facility, created logistical problems for Polymedia. The entire project had to be completed within a two and a half month window, and, as the installation was located next to the government executive offices, all work had to be done overnight to reduce disturbance to the daily running of the administration. The integration with the administration's operational secure links and network infrastructure was a particularly complex task.



Main Hall

The Main Hall is the heart of the Situation Center where important managerial decisions are taken. A central meeting desk features ten delegate workstations and one for a chairman, each equipped with a 17" ArthurHolm motorised display. Centrepiece of the room is a Mitsubishi Electric DisplayWall consisting of VS-70HEF78UA projection cubes in a 4 x 2 configuration. The front-access DLP cubes allow installation against the wall, saving up to 3 square metres of floor space. Satisfying the customer's requirements for reliability, Mitsubishi LED cubes deliver up to 100,000 hours of maintenance-free operation, and their 860Cd/m² brightness and a tiny interscreen clearance of less than 2 mm ensures an exceptional image quality.

All the DisplayWall systems are controlled using a software package developed by Polymedia, called Polywall. The platform allows the creation of meeting scripts and pre-configured screen layouts which can be recalled easily by non-technical personnel, thereby satisfying the requirement for an easy to use system.

Specifications

Model	VS-70HEF78UA
Technology	LED display wall cube
Overall Size	10.8 m ²
No. of Modules	8
Cooling system	Air cooling system with efficient cooling pipe and aluminum plate (No liquid)
Type	DLP™ technology (0.96" DLP™ 1 chip), DarkChip3™, BrilliantColor™
Resolution	Full HD, 1,920 x 1,080 pixels (per module)
Light Source	Redundant LED (RGB)
Light Source Service Life	≤ 100,000 hrs.
Brightness	860 cd/m ² bright mode 600 cd/m ² normal mode 410 cd/m ² eco mode 130 cd/m ² advanced eco mode
Contrast Ratio	1500: 1
Power Consumption	96 W in advanced eco mode, 124 W in eco mode, 174 W in normal mode, 258 W in bright mode.

DLP and Digital Light Processing are trademarks of Texas Instruments.



Analyst's Suite

The Analyst's Suite is equipped with a Mitsubishi Electric DisplayWall, twelve workstations with two monitors each, plus an operator workstation for preparing content and scenarios for events held in the SC. Content from any workstation can be shown on the DisplayWall, which consists of 4 x 2 Mitsubishi Electric LM55S1 super narrow bezel LCD displays. The unique mounting system allows the displays to be installed flush against the wall, maximising the available floorspace.

Server Room

The Server Room is divided into two sections; a secure area and simultaneous interpreter booths. In the secure area there are six servers and three equipment racks each of which serves a separate integrated system. One rack houses the video switching facility and Polywall 5000 visualisation system controller; one houses the integrated control systems and a third contains the audio equipment. The interpreter room has two simultaneous interpreter booths equipped with an interpreter console and a monitor showing live video of a current speaker, so that gestures can be observed

Installation and Results

The installation was completed on time by Polymedia and its subcontractor, Prognoz Company. After commissioning the site and training the SC staff, Polymedia formerly handed-over

the Situation Centre to the Kyzylorda local government in June 2014. The project was a complete success, fully satisfying the requirements of the brief.

Specifications

Model	LM55S1
Technology	55" Super Narrow Bezel LCD Monitor
Overall Size	6.6 m2
No. of Modules	8
Type	TFT LCD (IPS Mode)
Resolution	Full HD, 1,920 x 1,080 pixels (per module)
Back light technology	LED (Direct)
Viewing angle (H/V)	178°
Display orientation	Landscape / Portrait
Brightness	500cd/m ² high bright mode 365cd/m ² standard mode
Contrast Ratio	1300: 1
Power Consumption	162W standard mode 195W high bright mode

Customer Reaction

The Kyzylorda akkymat administration was delighted with the results of the project, citing Polymedia's effective use of unique, cutting edge technologies and equipment configuration to meet the highest international technical and industrial standards for government-level situation centres. Polymedia's highly professional handling of the complex project was singled out for particular praise.

The newly-implemented Kyzylorda akkymat Situation Center has no analogues in Republic of Kazakhstan. The powerful visualisation and analytic tools now at its disposal will greatly assist the regional authority in managing the region's affairs and planning effectively for its future prosperity.

Seventy Series from Mitsubishi Electric

The VS-70HEF78UA models used in the Main Hall are part of Mitsubishi Electric's pioneering Seventy Series. The centre-piece of this projection technology is an integrated, ultra-modern DLP® chip.

For its latest LED cube generation, Mitsubishi Electric has developed the innovative Smart 7 concept, a pioneering design for LED display wall cubes with a wide, intensive colour spectrum, optimum energy efficiency and an average service life of ten years. As a global market leader in LED cubes, Mitsubishi Electric currently offers the widest selection of models and is able to provide first-rate, well-engineered technology for customised solutions. The company has over 30 years' experience in LED solution development and large screen project management. We have already installed more than 61,000 DLP projector units worldwide.

The L55S1 LCD displays used in the Analyst's Suite offer a cost-effective and compact alternative to rear projection. Built to the same high standards as the Seventy Series cubes, Mitsubishi's LCD solutions offer high reliability, great versatility and excellent performance. Their slim form factor and unique mounting system allows LCD DisplayWalls to be installed flush against the wall, making them ideal for compact spaces.



Polymedia present the project to Kyzylorda oblast akkym. Akkym Krymbek Kuserbaev (in the center), Deputy Akkym Hurzhan Alibaev (on the right), Deputy General of Polymedia-Kazakhstan, Askar Khabibulin (next to him) and Polymedia's Director General Elena Novikova (on the left)

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