

# Situation Center of Atyrau Region, Kazakhstan



Polymedia, Kazakhstan  
2015

InAVation Awards – 2017



# Table of Contents

- 1. General Description of the Project . . . . . 3
- 2. Goals, Tasks, and the Purpose of the Project . . . . . 3
- 3. Requirements and Customer Feedback . . . . . 4
  - Engineering Requirements. . . . . 4
  - Software Requirements. . . . . 4
  - Feedback . . . . . 5
- 4. Description of Rooms with Integrated Systems . . . . . 8
  - 4.1. The Main Hall of the Situation Center . . . . . 8
  - 4.2. The Analytics Hall . . . . . 12
  - 4.3. The Control Room. . . . . 12
- 5. The Control System of the Complex . . . . . 13
- 6. The Information-and-Analytics System of the Situation Center of the Akimat of Atyrau Region . . . . . 14
  - 6.1. Integration of Data Streams of the Region into a Single Complex . . . . . 14
  - 6.2. Monitoring of the Social and Economic Development in Atyrau Region . . . . . 14
  - 6.3. Monitoring of the Sociopolitical Situation in Atyrau Region . . . . . 15
  - 6.4. Daily Situation Monitoring of Operational-Services Performance. . . . . 15
  - 6.5. Monitoring of Attaining Development Core Indicators of Atyrau Region . . . . . 16
  - 6.6. Monitoring of Execution of Control Tasks . . . . . 17
  - 6.7. Reporting Visual Data on Video Cubes of the Situation Center, in Specialist Workplaces,  
and on Tablet Devices of members of the Atyrau-Region Administration . . . . . 17
- 7. Stages of Implementation . . . . . 20
- 8. Problems during Project Implementation . . . . . 21
- 9. Project Development Capabilities after Implementation . . . . . 22
- 10. Contacts . . . . . 22

## 1. General Description of the Project

On the 21st of December 2015, there was a grand opening of a Situation Center of Atyrau Region with the participation of the akim (governor) of the region, Baktykozhi Izmuhambetov, and the head of the akim's office (the governor's office), Ernar Baspaev.

*Akimat is a regional executive authority in Kazakhstan, Akim (Governor) represents the president and the government authority in the region.*

Polymedia LLP became the integrator of the project and developed a comprehensive project that included both technological integration and the analytical component. The company has equipped the Situation Center with the state-of-the-art audiovisual and information-and-communications technologies and deployed an information-and-analytics system to increase effectiveness of management and control of the region.

Nowadays, the Center serves as an instrument to provide comprehensive information about the situation in the economic and social areas of the region, assists to prevent critical and emergency situations operatively, as well as collates the activity of the region with other regions of the Republic of Kazakhstan. In their turn, the aforementioned activities optimize and increase the effectiveness of the managerial decision-making process.

Locally, the Situation Center is comprised of the Main Hall, Analytics Hall, and Control Room, all inside the administrative building of akimat. Communications with seven district akimats of Atyrau Region can be performed via a video conference system.

The Situation Center also includes a mobile component, which is used during critical situations for online broadcasting into the Situation Center. IP cameras have been installed near building sites of social importance. These cameras are integrated with the Situation Center, allowing to monitor the statuses of the objects in real time.

The personnel of the Center consists of eight people, who are technicians and analysts who have completed a special training course created by the Polymedia LLP integrator.

## 2. Goals, Tasks, and the Purpose of the Project

The goal of the project is to increase the effectiveness of activity of the akimat of Atyrau Region by using state-of-the-art information-and-communications technologies.

The purpose of the project is to provide comprehensive information about the situation in the region, collate it with indicators from other regions of the Republic of Kazakhstan, and provide information for the managerial decision-making process.

Tasks that are solved at the Situation Center:

- monitoring, analysis, and forecasting of the social and economic development in Atyrau Region;
- monitoring of infrastructure and investment projects;
- evaluation of security and risk mitigation in economic, financial, demographical, industrial, informational, and other areas;

- analysis of the sociopolitical situation;
- strategic and effective planning of development of Atyrau Region;
- preparing and reviewing ways to solve emerging situations;
- providing information for collaborative efforts in decision-making;
- communicating solutions to executives and controlling them.

### 3. Requirements and Customer Feedback

The basic requirement of the Customer was to create an effective hardware-and-software complex of the Situation Center of akimat by resorting to services of only one integrator.

#### Engineering Requirements

- Usage of up-to-date equipment of world's leading manufacturers
- Uniqueness of the solution
- Reliability and stability of the system
- Exceptional functionality of the entire system as a whole and propriety of using each component
- Maximum ease of use for the complex of technical devices
- Exact and uncompromising compliance with delivery dates

In order to meet the demands for the wide range of requirements, the Situation Center has been equipped with up-to-date equipment and integrated systems: a system for displaying shared information on a video wall that spans 6 by 2 meters, formed by 8 Mitsubishi Electric video cubes; a system that duplicates the displayed information, based upon 8 ultrafine-bezel LCDs; a Bosch conference system; a system for interactive means of visualization; an Epiphan electronic archiving solution; Biamp and Extron sound systems; a system based upon DigitalMedia switchers by Crestron; a visualization-management system; a LifeSize video conference system; a Crestron system for control and integrated management; and an up-to-date ergonomic infrastructure for both standby and live modes of operation for the vast personnel of analysts of the Center.

#### Software Requirements

- Integration with data systems existing in the region and in the Republic of Kazakhstan
- Online data input for users of the system according to both the assigned access rights and the list of criteria defined by the Requirements Specification
- Integration with data systems of government agencies, which is performed according to the Requirements Specification
- Creation of a centralized database
- provision of information about the implementation status of monitoring, the plan of the akim, activities under various programs, and operational reporting
- Analytical data processing



## Feedback

Municipal Public Institution  
"Situation Center"  
Of Akimat of Atyrau Region  
060010, city of Atyrau  
77 Aiteke bi. St  
Tel. 8/7122/30-57-63

To  
Director general of Limited Liability Partnership "Polimedia"  
A.D. Khabibulin

### **Letter of recommendation**

Having decided upon the creation of Situational Center in Akimat (local council) of Atyrau Region, we looked up to the most unique and up to date technologies and equipment, which would provide compliance with international technical standards and technical standards of government level situation centers. Winning the competition, Polimedia LLP have completely fulfilled the set task.

We associate ourselves with the principles of the company's business activity – high-quality performance, complexity and the correspondence of their solutions to topical social and economic requirements in the business activity of the Client, and the company's attention to the provision of Client's specialists servicing competencies

Thanks to its technical and information functionality, Situation Center in Akimat of Atyrau Region became a powerful control tool for the activities of the region. Nowadays, the Situation Center shows its high potential in terms of efficient management support, thus, reducing the amount of time spent on managerial solutions, increasing their quality, and providing opportunity for fast decision making of the meetings' partakers upon targets and ways of their fulfilment.

Since the established situation center is a model project, there is an opportunity to replicate it in other Akimats in Kazakhstan and governing institutions and, consequently, cut budget expenses on the development of government control technologies.

Cooperation with Polimedia LLP showed high potential and great prospects. We wish the company further success, large-scale projects and reward!

Director A.T.Tabildiev



«АТЫРАУ ОБЛЫСЫ ӘКІМІ  
АППАРАТЫНЫҢ «АХУАЛДЫҚ ОРТАЛЫҒЫ»  
КОММУНАЛДЫҚ МЕМЛЕКЕТТІК МЕКЕМЕСІ



КОММУНАЛЬНОЕ ГОСУДАРСТВЕННОЕ  
УЧРЕЖДЕНИЕ «СИТУАЦИОННЫЙ ЦЕНТР»  
АППАРАТА АКИМА  
АТЫРАУСКОЙ ОБЛАСТИ

060010, Атырау қаласы  
Әйтеке би көшесі, 77  
Тел.: 8 /7122/ 30-57-63

060010, город Атырау  
ул. Айтеке би, 77  
Тел.: 8 /7122/ 30-57-63

№ 71  
20.09.2016

Генеральному директору  
ТОО «Полимедиа»  
Хабибуллину А.Д.

#### Рекомендательное письмо

Приняв решение о создании Ситуационного центра Аппарата акима Атырауской области, мы изначально ориентировались на самые современные и уникальные на сегодняшний день технологии и состав оборудования, что обеспечило бы полную реализацию заранее намеченного проекта и соответствие международным техническим и технологическим стандартам ситуационных центров правительственного уровня. ТОО «Полимедиа», выиграв конкурс на создание Ситуационного центра, полностью выполнила поставленную задачу.

Нам глубоко импонируют принципы деятельности компании – высокий уровень качества работ, комплексность и адекватность создаваемых решений реальным социально-экономическим потребностям в деятельности Заказчиков, а также внимание компании к обеспечению необходимыми компетенциями специалистов Заказчика по обслуживанию ситуационного центра.

Благодаря своему техническому и информационному обеспечению, Ситуационный центр акимата Атырауской области стал мощным инструментом управления и контроля жизнедеятельности области. На сегодняшний день ситуационный центр демонстрирует свой высокий потенциал для поддержки высокоэффективного управления, позволяя сокращать время принятия управленческих решений, повышать их качество, обеспечивать быстрое достижение согласия участников совещаний относительно целей и путей действий.

В силу типового характера реализованного ситуационного центра существует возможность его тиражировать по другим акиматам Казахстана и

000081



органам государственной власти, и, как следствие, сокращать бюджетные расходы на совершенствование технологий государственного управления.

Опыт сотрудничества с ТОО «Полимедиа» показал значительный потенциал и большие перспективы. Желаем компании успехов, масштабных проектов и победы на премии!

**Директор**



**Табылдиев А.Т.**



## 4. Description of Rooms with Integrated Systems

### 4.1. The Main Hall of the Situation Center



The Main Hall of the Situation Center is the main room of the Situation Center, where important managerial decision-making processes occur. There is a conference table with nine seats in the main hall: eight for delegates and one for the chairman. Each seat is equipped with a motorized Arthur Holm 17" LCD, which can work as a duplicate screen and computer. An operator has a centralized control over the displays via the integrated control system.

All of the workplaces of the conference are equipped with an individual Bosch conference-system channel selector for a relevant simultaneous-interpretation channel. The flush channel selectors are compactly built into the table design, providing maximum functionality as well as saving workspace for documents.

There are four autofocus high-resolution cameras, which are used within various systems such as logging, video conferencing, and performing technological surveillance. Near the table, there is an interactive platform for the reporter. The platform has a built-in flush channel selector and an interactive 22" pen display to demonstrate and visually comment presentations and other documents that are displayed upon the video wall of the Hall.

One of the four cameras is installed to operate in the secure mode that is used when all of the complex and room equipment is disabled and powered down, excluding the video wall, sound amplification and video conference codec that work over a secure channel.

The video wall of the Main Hall of the Situation Center is created by using 4x2 Mitsubishi VS-70HEF78U rear projection cubes. For maintenance, the video wall has a frontal access, which allows to save up to





three meters of space in the room. Some of the key features of the video wall are its great life expectancy (approximately 100,000 hours of endless operation), high contrast (up to 810 cd/m<sup>2</sup>) as well as a minimal gap between the screens (less than 2 mm). For conference participants, the Situation Center has three duplicate 55" LCDs for outputting information that is identical to the one for the video wall. This includes video conference broadcasts, the Internet Web pages, and information from other hardware and software sources. It is possible to control visualization on the video wall and displays by means of a user-friendly Polywall visualization complex.

For the audience members who are not taking part in a conference in person, there is a simultaneous-interpretation infrared system for clear understanding of speeches taking place at international conferences at the Situation Center.

In the Main Hall of the Situation Center, there is an operator workplace fitted with a visualization workstation and an interactive display of the integrated control system, which allows the operator to control the entire equipment complex effectively and easily, starting from controlling lighting and ending with managing content on motorized displays.

The Hall is equipped with high-fidelity sound equipment. There is a professional sound reinforcement system powered by a Biamp Tesira state-of-the-art digital platform. The sound system also has a feedback suppression feature as well as Extron sound amplifiers and loudspeakers.

Video signal switching between all of the sources, means of display, and other specialized equipment is performed by an up-to-date Crestron Digital Media platform with 32x32 ports. The system utilizes optical data interfaces and has high reliability, performance, and user-friendly control interface developed by Polymedia LLP specialists.

Also, an information-and-analytics system has been deployed into the operation of the Center. This has been performed together with the Prognoz company as part of the project. The system is integrated with data of the akimat of Atyrau Region, which allows to monitor and visualize information on dynamic key trends of regional development on the annual basis and collate the indicators with the data from other regions of the Republic of Kazakhstan. Polymedia LLP specialists have integrated the system with the operating systems of the region (Unified Information Portal and Geoportal).

In the Main Hall, there is an analyst workplace that has access to information resources of the Center. Owing to the switching subsystem, the image from the display of the workplace can be sent to the main video wall for analytical support during conferences.

To manage data streams and to output data to the video wall of the Situation Center, Polywall software package (developed by the Polymedia company) has been deployed onto additional displays and individual workbenches of conference members. This program package allows to create scenarios for the holding the conference and to cascade windows with data

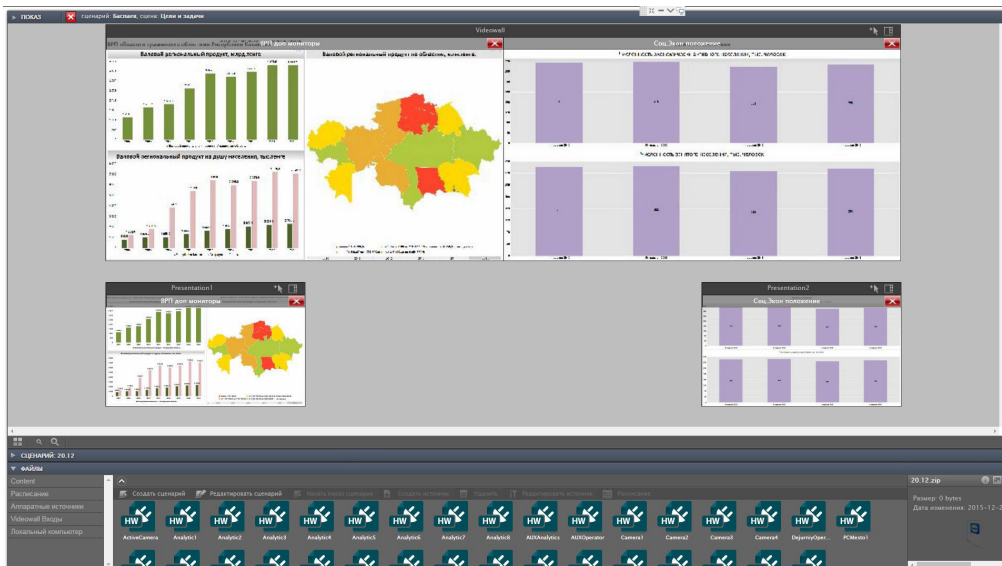
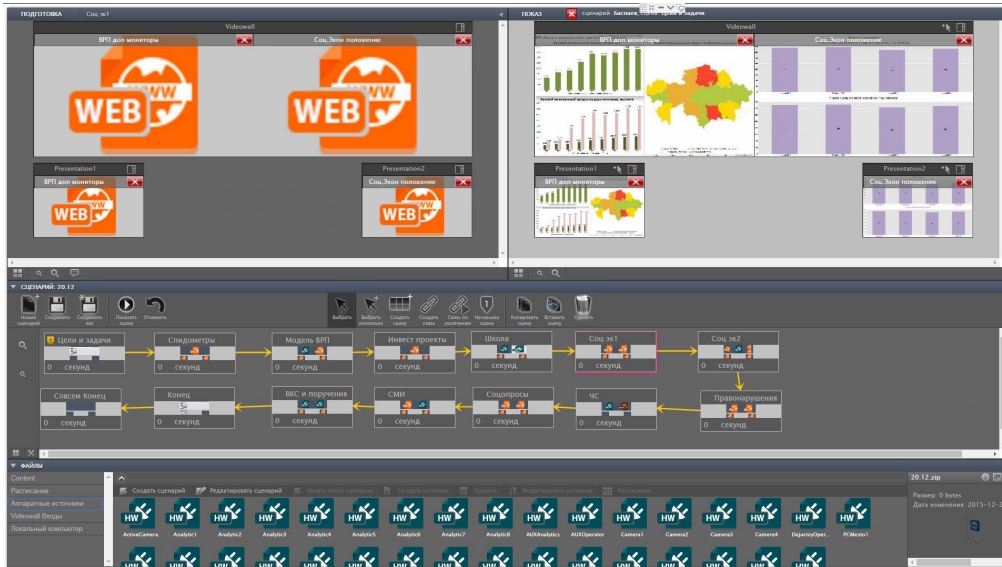
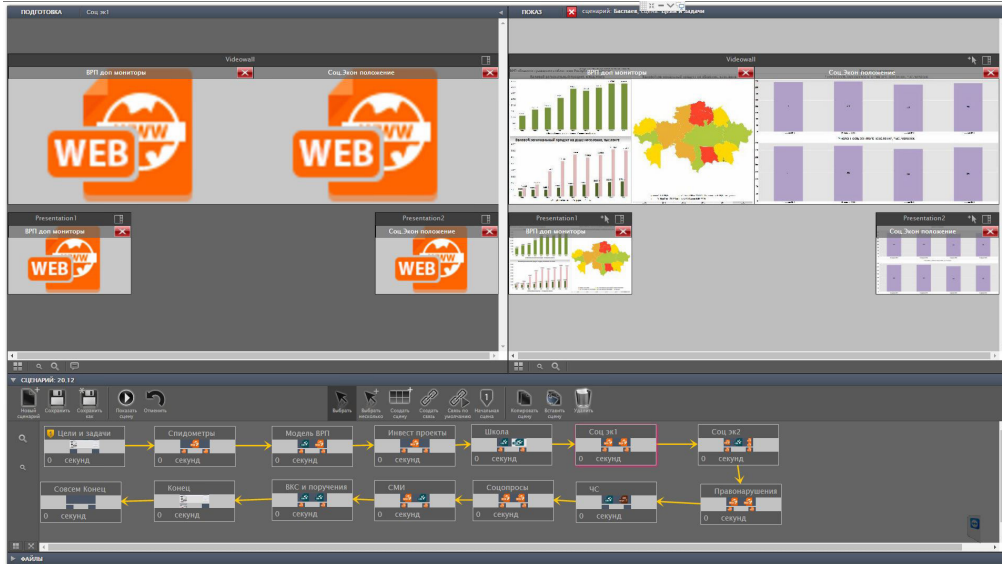
on the video wall of the Main Hall of the Situation Center to reflect the discussed issues at the Situation Center.

The Polywall software was developed to manage information output and provide maintainance for held congresses, board meetings, conferences, and work meetings at control centers and situation centers. This unique software package is an effective tool for visualization management, development of multiple scenarios for holding conferences, as well as effective management for software and hardware components.

The Polywall software solves the following basic problems:

- effective management virtually of all of the audiovisual
- complexes both in real time and according to a predefined scenario;
- effective and easy management of data visualization modes from any
- number of sources of various types on any number of displays
- of various types;
- creating and saving nonlinear conference scenarios, which include the state of all of the
- hardware and software at any given time and a possibility of prompt
- usage of scenarios and their modification;
- displaying large volumes of numerical data from various sources as
- business graphics for clear understanding; this is mostly relevant for shared
- displays.

The following screenshots show an example of layouts for visual analysis of an economic situation for a region, compared to the situation for other regions of the Republic, and the analysis of dynamic changes of important social and economic indicators.





## 4.2. The Analytics Hall



The Analytics Hall is equipped with a video wall, nine workplaces with PCs and two monitors for analysts, as well as operator workplace who can prepare content and activity scenarios held at the Situation Center. Analysts can broadcast content from their workplaces to the video wall that is comprised of 4x2 ultrafine-bezel LM55S1 Mitsubishi Electric LCDs. The video wall is identical in resolution, aspect ratio, and the number of displays to the one installed in the Main Hall of

the Situation Center. For technical maintenance, there is front access to each module of the video wall.

The acoustic system of the Hall allows employees to work with content and hear everything that takes place in the Main Hall. To connect portable equipment, there are Extron audio-video jacks built into some of the tables of the Hall.

## 4.3. The Control Room

The Control Room is located behind the main video wall of the Situation Center. The Room is equipped with an air-conditioning system that has a back-up capability and access and fire-suppression control. There is a electric-power feed and a UPS (uninterruptible power supply) rated at 32 kW, which provides continuous operation of the entire complex and its operation for 20 minutes at full battery load.

The Control Room has three racks with hardware, each responsible for its own individual system integrated into the project: there are a rack with a video switch and a Polywall 5000 display-system controller, a rack with integrated control systems, and a rack with sound equipment.



Cisco telecommunication hardware in the Control Room provides integration with different networks of the Customer, including the network of the Department of Internal Affairs of the region. This allows to use the video wall to display, if necessary, up to 70 camera feeds from the cameras installed at key locations and crossroads of the city and region.

## 5. The Control System of the Complex

### The Control System of the Complex. The Analytics Panel

The complex is managed by the xPanel\_analitic software with a graphical user interface (GUI). The Crestron PRO3 control processor is the core unit of the control system. The Control Panel can be connected to the controller over Ethernet. The system contains sound and power management subsystems.

### The Control System of the Complex. The Operator Panel

The complex is managed by the xPanel\_operator GUI-based software for PC and by the graphic shell for the TPMC-V15 panel (hereinafter Control Panel) User control interfaces for xPanel\_operator and TPMC-V15 feature similar functions and graphics. The Crestron PRO3 control processor is the core unit of the control system. The Control Panel can be connected to the controller over Ethernet.

The system contains the following subsystems:

1. a video subsystem;
2. a sound subsystem;
3. microphone and camera control;
4. a video conference system;
5. power management



Input source selection

## 6. The Information-and-Analytics System of the Situation Center of the Akimat of Atyrau Region

In order to increase performance and improve information-and-analytics support for the Situation Center of the akimat of Atyrau Region, an information-and-analytics system based upon a Prognoz platform has been developed and deployed for the Situation Center, which allowed to provide solutions for the main tasks listed in this section.

### 6.1. Integration of Data Streams of the Region into a Single Complex

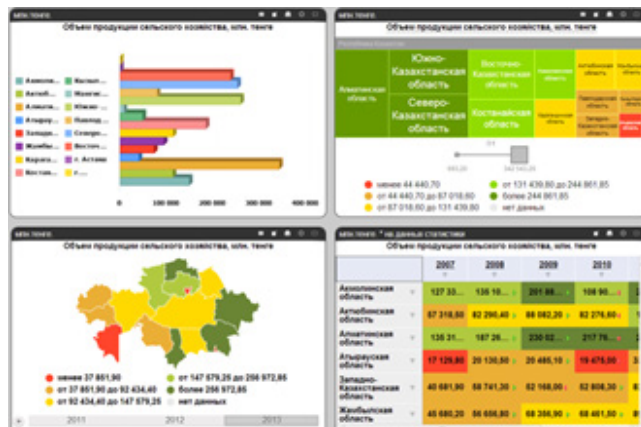
The integration subsystem provides the following utilities for handling data and providing integration with information systems:

- 6.1.1. availability of tools for integration with related relational databases managed by industry-standard database management systems (DBMS), namely Microsoft SQL Server, Oracle, and DB2, with the feature of scheduled data transfer into mass storage;
- 6.1.2. availability of tools for importing data from various file formats (XML, XLS, DBF, TXT, and MDB) automatically;
- 6.1.3. a Version Control System that can also show recent data changes.

### 6.2. Monitoring of the Social and Economic Development in Atyrau Region

The subsystem for the social and economic development is designed for the following:

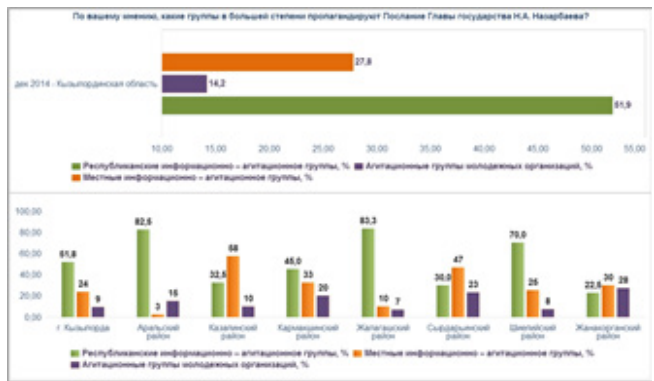
- 6.2.1. collecting, processing, and storing indicators of the social and economic development of sectors of the economy and life activity in Atyrau Region;
- 6.2.2. statistical and mathematical estimations and calculating missing values;
- 6.2.3. providing clear graphic and cartographic indicator values by using the means of visualization and personalization;
- 6.2.4. publishing and displaying data on the schematic map of the region;
- 6.2.5. prompt creation of content for conferences related to the subject matter of the social and economic development.



### 6.3. Monitoring of the Sociopolitical Situation in Atyrau Region

The sociopolitical monitoring subsystem is designed for the following:

- 6.3.1. providing information about the results of sociological surveys carried out within the region;
- 6.3.2. monitoring of activities of political parties and public associations, which includes providing information about election results and actions and campaigns carried out by public associations and parties within the region;
- 6.3.3. monitoring of attitudes toward protest;
- 6.3.4. monitoring of social attitudes toward particular actions of the authorities and to the authority as a whole;
- 6.3.5. monitoring of results of processing news and articles from mass-media Web sites;
- 6.3.6. monitoring of user messages within social networks and blogs (Facebook, VKontakte, and Twitter).



### 6.4. Daily Situation Monitoring of Operational-Services Performance

The subsystem of daily operative monitoring is designed for presenting information, which is listed in this section, from operational services of Atyrau Region:

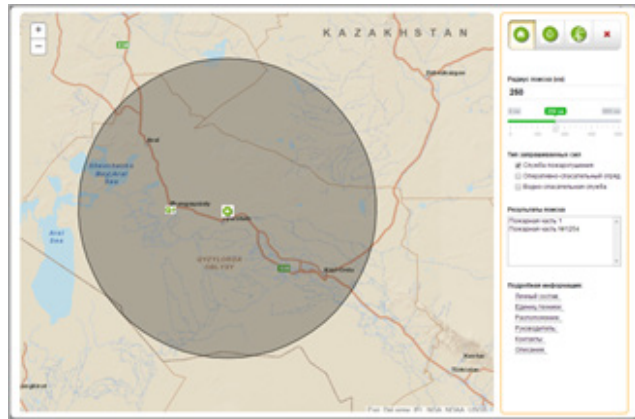
- 6.4.1. Daily law-enforcement situation reports that include the following:
  - information about reported crimes;
  - solving felonies and socially dangerous crimes;
  - other information included in daily reports.

6.4.2. Information about emergency situations in Atyrau Region:

- natural, man-made, and social emergency situations;
- task-force dispatches;
- a fire hazard situation;
- road traffic accidents;
- actions of search-and-rescue services and other information.

6.4.3. Data for monitoring of manpower and means to address consequences of emergency situations:

- reference material for the manpower and means (fire-fighting services, operational-rescue squads, water-rescue services, hospitals, etc.);
- a list of nature, man-made, and social emergency situations;
- estimation of remaining manpower and means to address the consequences; this estimation involves of the geodesic data of the region.



6.4.4. Other situation information:

- passing the Unified National Test;
- seasonal field works (sowing, harvesting, etc.);
- preparation to and going through the heating season;
- activity of ambulance services;
- prices for basic foodstuffs and fuels and lubricants;
- flood preventive actions, going through the freezing-over period, and other information.

## 6.5. Monitoring of Attaining Development Core Indicators of Atyrau Region

This subsystem of monitoring solves the following problems:

- 6.5.1. creating and decomposing the core indicators of development of the region; this process utilizes strategic documents of the region and republic levels;
- 6.5.2. controlling the completion of objectives by using factor-analysis, simulation, and prediction methods;
- 6.5.3. linking the core indicators of the development of the region to the assignments of the akim and to the investment and construction projects that are being implemented within Atyrau Region;





- 6.5.4. preparing reports on the outcome of achieving the core indicators by using up-to-date means of data visualization;
- 6.5.5. publishing analytical information on a private portal of authorities and on public information resources.



## 6.6. Monitoring of Execution of Control Tasks

This subsystem of monitoring solves the following basic problems:

- 6.6.1. monitoring of the process of completing assignments issued by the authorities of the republic;
- 6.6.2. monitoring of the process of completing assignments issued by the government of the republic;
- 6.6.3. monitoring of the process of completing assignments issued by the akim of the region broken down by responsible executive authorities and district and city akimats;

№ входящего документа	№ исходящего документа	Дата исполнения	Код выполнения	Ответственный исполнитель	Краткое содержание	Корреспондент
№ 1106-2020-03/4-026 от 23.02.2014	№ 20-03/4-026 от 21.02.2014	кв 20 2014 12.06.14	направлено письмо	Алиевская Асияр Сергеевна	ММТ - компания А.О. ММТ - Сервисы А.С. (ООО) МТС - ДжиКом Т.Б. КОМ - ДжиКом Е.А. МРР - Жакышев Б.Б. Акима области и Алматы и Актау. Прямой исполнитель, завершение до 1 декабря 2014 года всех поручительных работ и доплата об исполнителях - Абдыкалимов И. и с мая 2013 г. МКО-0344-021 К. Инженер Промысла РК от 18.05.14 г. МКО-0211. Инженер Промысла РК от 14 мая 2014 г. МКО-0344-021	Канцелярия Премьера Министра РК
№ 1520-2020-04/02-03/4-026 от 19.07.2014	№ 20-04/02-03/4-026 от 17.07.2014	кв 21 2014 12.06.14	выполнено акт	Гуркина Наталья Николаевна	КНММ - Т.Б. (филиал компании) КНМ - Б.Б. Жакышев МКО-03 - Е.А. Досаева ДРМ - А.Б. Серикжанов Область Промысла. Акты о вводе объектов капитального строительства. Проверка альбомов Жилищно-коммунального хозяйства. 2014 кв. 1 и исполнительские данные. Г. Общественная 2014 г. «17» июля № 20-09/02-03/02-13	Канцелярия Премьера Министра РК
№ 2021-2011-21-0208 от 11.11.2014	№ 11-21-0208 от 10.11.2014	кв 17 2014 12.06.14	Копирование	Ковалева Елена Сабуровна	КОМ - Е.А. Досаева (компания) АДМ - А.С. Манкентова (компания) - Б.М. Исмаилов (компания) - С.Т. Султанов (компания) от: закон - К.С. Аксарбаева (компания) от: акт, депутат Саудыбаева Бермет-Аманжол кыбышев И. и 21 обращение данные республике сарыбаев Е. Крайне 2014 г. «10» апреля № 11-21-0208/17 Парламент Министров Республики Казахстан, 2014 кв. 3 11. № 20-242 от 11.11.2014	Канцелярия Премьера Министра РК
№ входящего документа	№ исходящего документа	Дата исполнения	Код выполнения	Ответственный исполнитель	Краткое содержание	Корреспондент

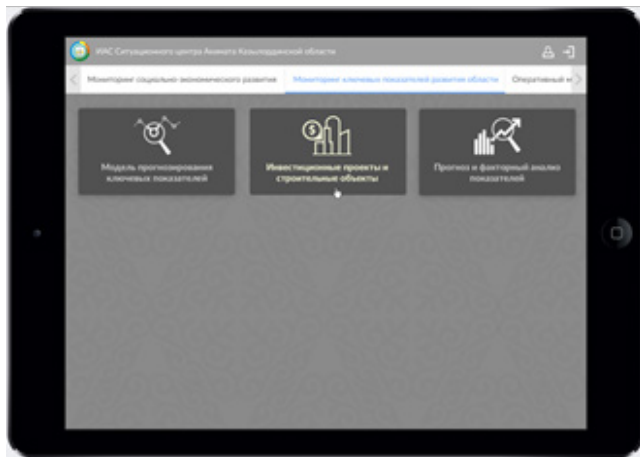
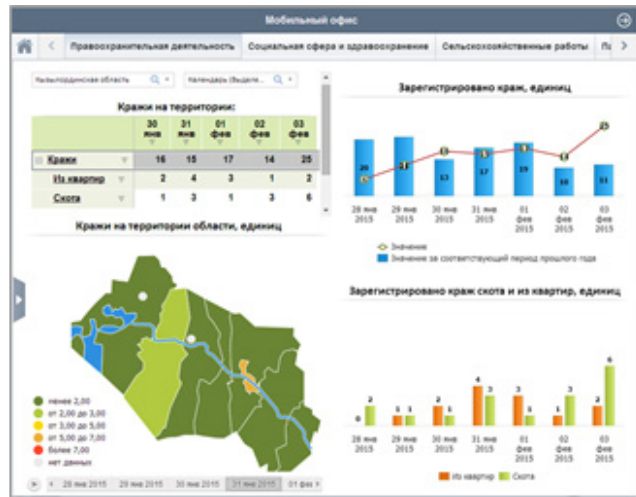
- 6.6.4. creating a list of assignments that have not been finished in time, that have been finished with a delay, and that have been finished in time, broken down by the types of assignments and responsible sides;
- 6.6.5. monitoring of the dynamics of completing assignments and the number of assignments that missed the deadline;
- 6.6.6. creating consolidated ratings of completing assignments broken down by responsible sides and assignment types.

## 6.7. Reporting Visual Data on Video Cubes of the Situation Center, in Specialist Workplaces, and on Tablet Devices of members of the Atyrau-Region Administration

Reporting data is ensured owing to using tools of creating the analytical panels by analysts of the Situation Center as part of preparing visualization forms of specialized sections and subsystem data for the akim of the region and his deputies, specialists, and the authorities of the administration.

The tools include the following features:

- 6.7.1. creating personalized visualization desktops of a fixed set of indicators, references and data, arbitrary and routine reports, personal notification settings, and a personalized list of references to other functional modules of the system;
- 6.7.2. creating graphic, tabular, cartographic, and infographic reporting as well as presenting media files;
- 6.7.3. attaching to the desktops the results of surveys conducted among experts on the relevant problem as a text description or charts;
- 6.7.4. personalization of user desktops according to personal settings and user access rights, which include the content, location, and reporting means (specific chart types for various indicators) of information;
- 6.7.5. publishing and showing desktops as analytical panels on display equipment of the Situation Center;
- 6.7.6. publishing desktops online as analytical panels via the Safari browser on iPad tablets.



**Currently, the information-and-analytics system has been integrated with the following systems:**

- the unified system of statistical reporting of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan;
- the unified system of the workflow of the Republic of Kazakhstan;
- the Geoportal of the akimat of Atyrau Region;
- the system of scenario-based management of data visualization in the Main Hall of the Situation Center (by using Polywall);
- the system of IP video surveillance that consolidates all of the views from the cameras installed at important building sites of the region



**Upon completion of a project, the users of the Situation Center can access to the information-and-analytics system from the following devices:**

- the video wall of the Main Hall and the Analytics Hall of the Situation Center;
- akimat employees' workplaces (according to the access rights);
- mobile devices of the most senior authorities of the region.



## 7. Stages of Implementation

The stages of implementation of the hardware part of the project are typical for the project of that scale:

1. inspecting the object and identifying the Customer's needs;
2. development of a feasibility study;
3. choosing the building and designing packaging and seating;
4. developing a technical specification and negotiating the budget;
5. preparing and developing the technical project based upon the equipment and information-and-analytics system;
6. contest procedures;
7. delivering the equipment;
8. deploying the information-and-analytics system;
9. preparatory work inside the building and general construction work;
10. laying cable ducts and trays;
11. mounting and commissioning the equipment;
12. installing the final hardware of the video conference system in district akimats;
13. Customer training;
14. running the pilot operation and developing executive documents and user manuals.

The overall time frame of implementing the hardware part of the project was eight months.



## 8. Problems during Project Implementation

- A large volume of general construction work
- Installation of motorized displays into lacquered furniture
- Supplying power (before installing a UPS)
- Providing access to the information base of the akimat to integrate the data with the information-and-analytics system that was being deployed
- One of the main problems of the project was management. The project was comprehensive and suggested collaboration of specialists within ProAV and during deployment of the analytical platform. In that respect, the Polymedia team gained vast experience in managing the integrated project with a comprehensive structure of interaction between the participants, who specialize in a large number of systems.

### 8.1. Problems during deployment of Information-and-Analytics System

- Coordinating and gathering reports on all of the key administration offices of the akimat.
- Developing and coordinating models of forecasting indicators for the social-and-economic monitoring block.
- Implementing into the administration offices of the akimat the process of routine input and provision of information that is necessary for the situation to work.
- Integrating local network of the Situation Center with the region-akimat network in compliance with safety measures and proper user access rights.
- Tight deadlines for consolidating over 1,000 indicators, setting up over 240 analytical panels, and training over 120 head members and employees of the akimat.

## 9. Project Development Capabilities after Implementation

Development of the project implies the following several specific steps:

1. installing three additional kits for online broadcasting of audio and video signals from the scene of action over satellite and GSM channels. These are LiveU LU500 field units with high-resolution cameras in the kit;
2. developing infrastructures of video conferencing not only at the akimats, but also at other government authorities of the region by integration;
3. installing IP cameras at all of the building sites for investment projects that are important for the region as well as at construction objects that are being erected as part of implementing government programs;
4. equipping the small conference hall of the akim of the region with motorized displays, video wall, sound equipment and integrating them into a common audiovisual network with the Situation Center by using a Crestron Digital Media matrix;
9. developing the information-and-analytics system with the link to major government programs in the area of health care, education, and other socially-significant areas;
10. deploying branch sectors of monitoring (education, health care, budget planning, agriculture, health and safety, etc.);
11. integrating with recommissioned information systems of the republic and region;
12. using the system for satellite monitoring owing to the successful integration with the Geoportal of the akimat.

## 10. Contacts

### **Polymedia LLP**

010000, Astana, ul. Sharlya de Gollya 3A, floor 3 (residential complex Paris Quarter)

Tel:+7 7172 23-51-50, 23-51-51

Fax:+7 7172 23-51-52

info@polymedia.kz cis@polymedia.ru