Russian Parliament on Bitrix

Bitrix Site Manager / Bitrix Intranet Case Studies 2011

Client: The Russian State Duma (Parliament of the Russian Federation)
Industry: legislature (federal government)
Implementation partner: OOO Intaro Soft
Site: http://www.duma.gov.ru/

Intaro, a Bitrix Gold Partner, developed the official web resource of the Federal Duma of the Russian Federation. The high quality design of the site was produced by Intaro's team of specialists, and the broad functionality and superior level of stability is delivered by Bitrix Site Manager. A long list of integration tasks for the site were completed on time and in compliance with the client's strict requirements.

About the Duma

The State Duma of the Russian Federation is the highest law-giving body in the country, the parliament of Russia. Today, the Duma has 450 deputies (article 95 of the Russian Constitution). Deputies serve 4-year terms and next election will be held on December 4, 2011.

The work of the Duma is coordinated by the Chairman and the Vice Chairmen, and each fraction or parliamentary group can endorse candidates to the position of Vice Chairman. The daily interaction of the deputies is carried out in the many committees of the Duma. The Duma has the power to pass laws applying to the Russian Federation by a simple majority vote, except in extraordinary cases defined in the Russian Constitution.
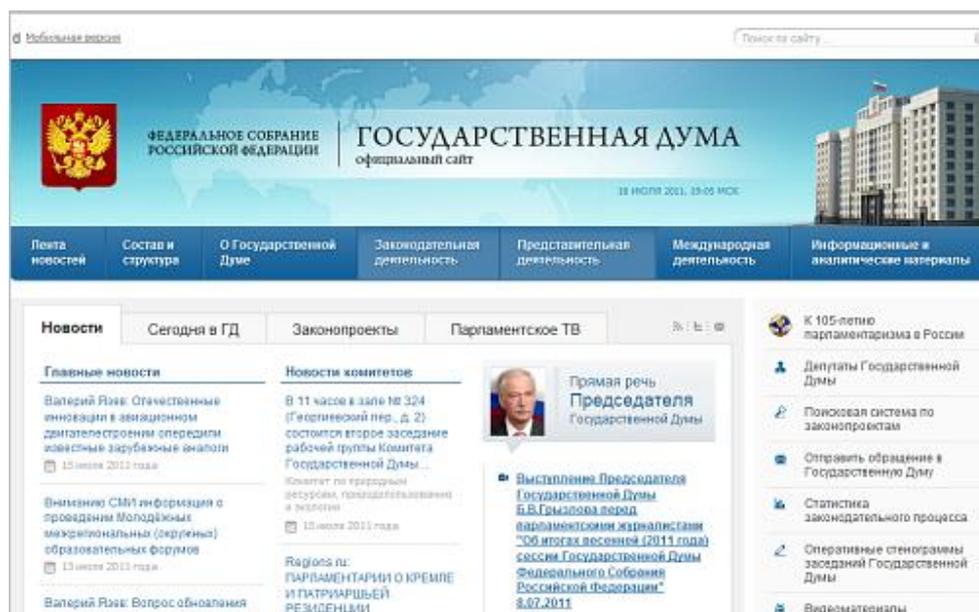
Project origins

Naturally, the activities of the Russian federal lawmaking body and its 30+ committees require a multi-faceted, and very large, Internet resource. Bitrix Site Manager's platform, which is able to process a few million a single server per day, is well-suited to the purpose. The Duma required a single internet presence providing all visitors simple and quick access to a vast amount of both current and archive-type information. Additionally, all of the legal, analytical, statistical, historical and other information and its presentation must comply with the norms applicable to documents of the Duma. In June of 2010, it was clear that the existing site was not able to perform the basic tasks required, nor operate stably with the high traffic load characteristic of a web resource of such an important government body.

Objective and main tasks of the project

The key objective of the renovated site was, therefore, supplying appropriate technology and an appropriate interface. Additionally, the portal was required to support a number of services and

instruments, allowing information seekers to learn about deputies, fractions, history and the activities of the Duma such as legislative initiatives, laws enacted, proposals made and rejected, and the latest news. Likewise, the new site needed to provide a picture of the results of the work of the legislature in different time periods, describe the international aspects of the Duma's activity, and serve as a channel for feedback with deputies.

View of the main page of the official website of the Russian State Duma

Implementer

Intaro is listed among the top 3 e-store developers and among the top 100 Moscow web studies according to rankings from cmsmagazine.ru. The company's core business is development of portals and internet shops as well as solutions for corporate sites and web-based automation of both internal and external business processes.

Intaro is a Gold Partner of Bitrix. The company over 100 successful software development projects and 32 certificates for quality or expertise in applying web technologies. One particularly notable project was the automation of *re:Store,* the largest chain of specialty shops selling Apple technology in Russia. Among the other projects of interest in Intaro's portfolio are a portal for a nationwide insurance broker and the first Russian online web service for building mind maps.

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Choosing a platform

In its competitive bid, Intaro offered a solution based on Bitrix Site Manager. The developers were convinced that the platform would not only enable the development of a high-quality site, but also help to inspire confidence in the accepting committee at competitive stage.

Reliability and security

Ensuring informational security of websites is a complex process that requires rigor and starts along with the very first stages of creating a project.

The State Duma of the Russian Federation is the highest lawmaking and representative body in the country. Today there are 450 deputies from 89 oblasts (regions) and republics.

For the web resource of such an august institution, loss of data is simply not allowable, as it could lead to serious complications at the highest political level. For this reason, site development needed to be accompanied with a great deal of concern for information security in the environment and in all incorporated web applications, to ensure that the resulting project protects the Duma, its deputies, and its parties from today's IT threats.

Bitrix Site Manager has been tested by numerous independent experts and information security companies. In fact, many such companies have chosen Bitrix as the platform for their websites, including securitylab.ru, Aladdin-rd.ru and others, and holds the highest level of certification for e-commerce systems issued by the Russian government as well as a *Secure Web Application* certificate from Positive Technologies, a private software auditing company. Thus, Bitrix Site Manager was able to provide the demonstrably highest level of security for the project.

Quality in always in demand

The total number of web resources developed on the Bitrix platform surpasses **fifty thousand**. Naturally, the Bitrix Partner network is also extensive, with over five thousand members implementing high-quality, scalable and stable web projects. This very large footprint in the web community creates an environment which allows Bitrix to address the needs of many market segments and serve each with well-tested solutions.

Performance and scalability

According to the most recent testing, Bitrix Site Manager's platform is capable of processing several million user hits on a single server. This number is achieved through the well-engineered architecture of the system, multiple caching methods, and innovations unique to Bitrix. High performance of a website is especially in this case, as there are 'peak' times such as elections and committee-forming when the site's traffic spikes markedly.

The platform also allows deployment on a wide variety of combinations of hardware and software. Three database formats: MySQL, MS SQL and Oracle, are supported.

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Detailed documentation for users and developers

Detailed documentation, online training, and forums accessible from the Bitrix website are a valuable resource to client and developer alike. All the aspects and features of the product are covered and several are presented in convenient training courses or online videos.

"We recommend Bitrix Site Manager for its robustness in range of functionality, performance, and, beyond the technical side, the fact that it is a market-proven product that has occupied a leading position for around seven years. Proof of quality was critical in the competition for this project, and the fact that the system had already been used in many governmental sites at various levels as well as high-traffic sites made that issue much easier" – **Dmitri Borozdin, General Manager of Intaro Soft**.
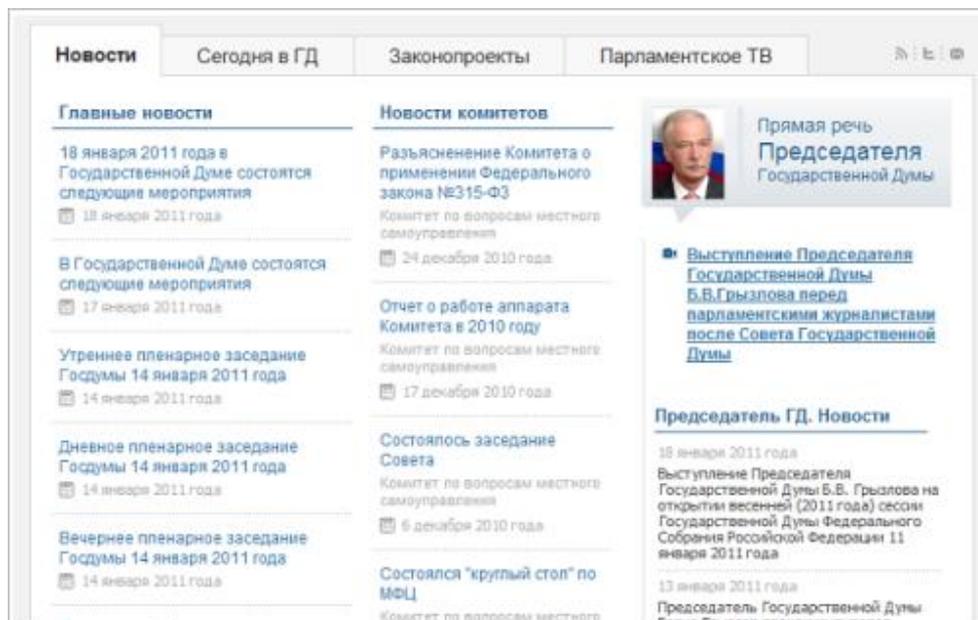
Implementation

The bulk of the work was performed between June and November of 2010. The project was launched on January 25, 2011. By that time, a well-structured web resource with an understandable layout and interface and unique design was fully ready to go. The site contains 11 different integrated systems, such as Duma TV, a legislation portal, and a feedback area which all required integrated interfaces with the new site's style.

The most interesting solutions in the site, according to the Intaro team, were:

Parallel news threads

Creating several news threads (Duma news, Committee and commission news, Chairman's news) was enhanced with the visual and logical separation of important information flows and dependence on the sources. This, naturally, helps in finding news that is of interest to the given user, whether a citizen, government official, or journalist.

New events: News tab

For the press workers in the Duma, who enter content on a daily basis, the internal workflow was very useful, allowing news to be published as soon as it is approved by an editor. Content editing in the front end saves significant time in writing and proofreading. The *Committee news* is automatically published via an RSS from the external sites of the various committees.

Development of the legislation search system

Using the large number of filters available, site visitors can find the legislative documents they need by number, title, period of registration and other important criteria.

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Search of legislative documents

Interactive model of the parliamentary chamber and its fractions

The deputy search feature on the main site page is designed for quick location of information about a given deputy. Users can find specific information about any deputy in seconds using criteria such as district represented, party, committee, or alphabetically. The general list includes the photo and name of the deputy, and a link to a personal page is available.
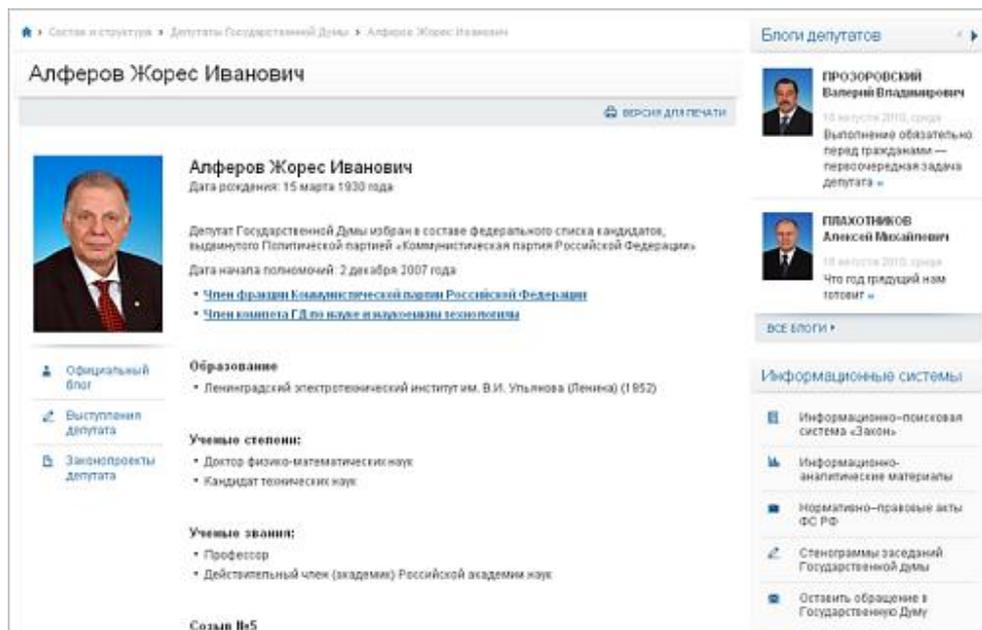

Search by table

The interactive model of the chamber, in turn, lets users see what seats are occupied by what party

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fractions. Initially, a system was developed to show the members themselves, but for various reasons, that system was rejected by the client.
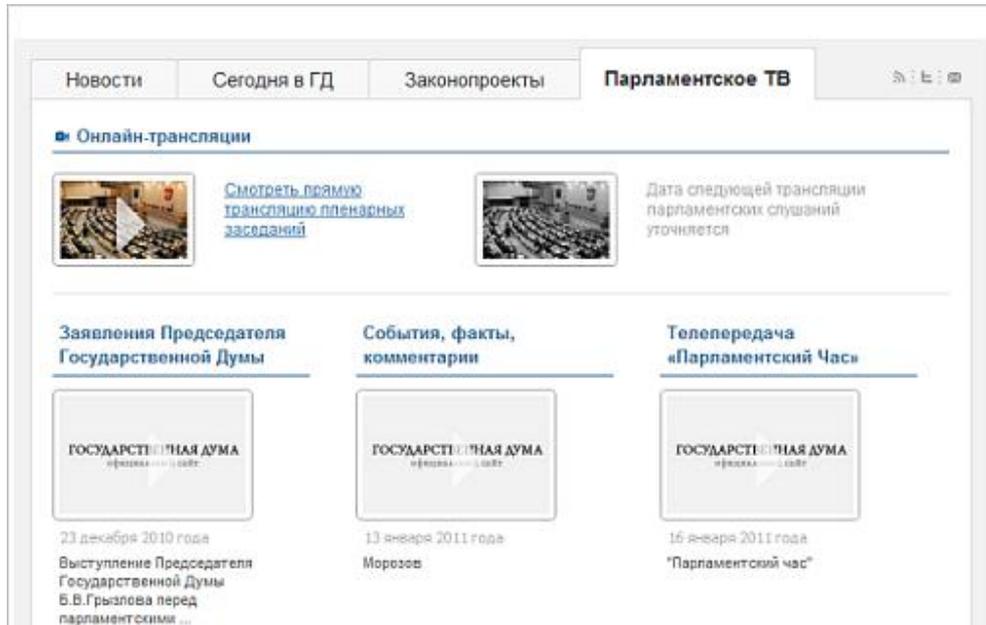
Deputies' personal pages

The personal pages of deputies contain information such as date of birth, education, and the date since which the member has served in the Duma. An interesting feature is that from this page one can navigate to listings of the member's speeches or legislative initiatives.

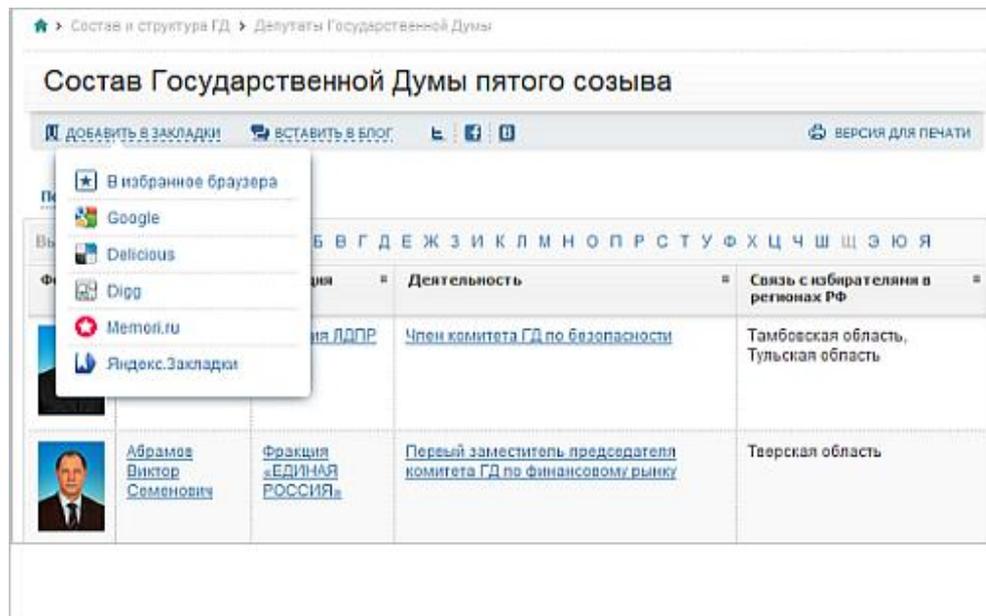*Deputy's personal page*

Video material section

The cutting edge platform of Bitrix Site Manager allows the State Duma to product its own internet TV. Parliamentary broadcasting from the chamber as well as appearances of the Speaker, Boris Grislov, to the government and the press corps are shown. There is also a produced weekly program, *Parliament Hour.*
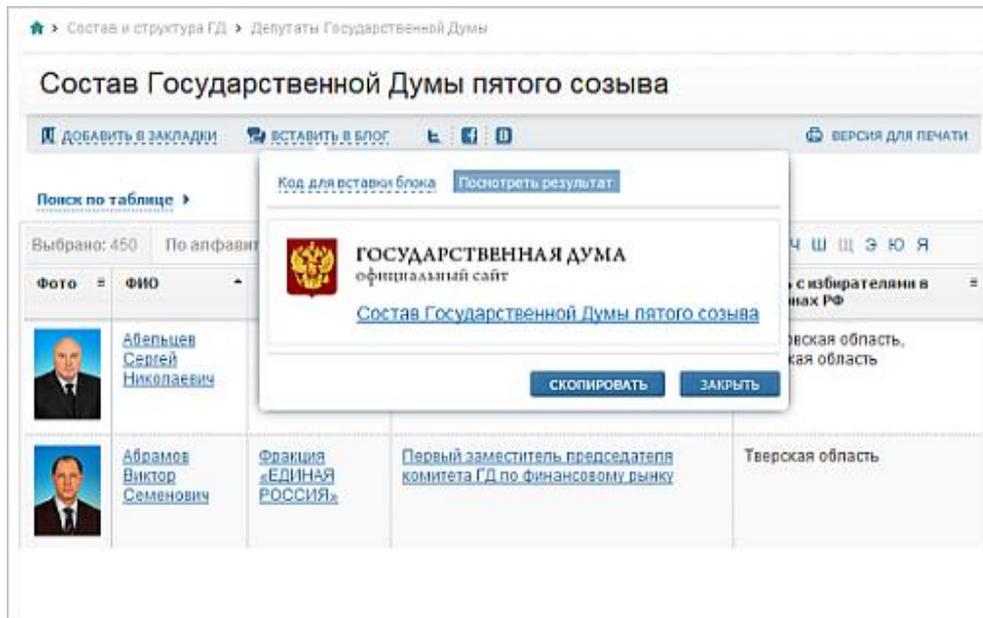
Fragment of the parliamentary TV page

Social networks and services

Many internal pages of the site have integration with social networks, so that information from the site can be displayed in Twitter, Facebook, Vkontakte; and content such as speeches, legislation, lists of deputies and press releases can be put into Google, Yandex, Digg, Delicious, or Memori bookmarks.

Uploading to a social network or social site

Finishing upload to social network

Mobile version of the site

A mobile version of the site allows reading news about the State Duma form any mobile, smart phone, or mobile device.

Site as viewed through a mobile device

Integration with the AIS *Legislation* system

It is notable that the site is integrated with a very large and widely-used system which provide

services for business and organizations which need precise and current knowledge of legislation and the activities of the Duma. The *AIS Laws and Bills* system uses an Oracle database. Data exchange with this system is carried out using an *infoblock* in the Bitrix Site Manager system.

The result of this integration is that the bookmarks of the *AIS* system appear automatically on the site, offering the results of deliberation on proposed laws from the most recent Duma session. This relieves a great deal of work from the content managers. It also give visitors an up-to-the-minute picture of the scheduled topics for the current session and voting results.

Legislative process statistics

An easy-to-read table showing statistical data of proposed laws brought to the Duma indicates how many were reviewed, reviewed a second time, their general category, and whether they were ratified. This system is optimized using Bitrix' caching.

Статистика законодательного процесса за 2010 год			
СТАТИСТИКА ЗА ВТОРОЙ СОЗЫВ ТРЕТИЙ СОЗЫВ ЧЕТВЕРТЫЙ СОЗЫВ **ПЯТЫЙ СОЗЫВ**			◄ показать детали
Показатель	Всего	Федеральные конституционные законы	Ратификация
Количество законопроектов, внесенных в Государственную Думу	1054	15	85
Количество законопроектов, принятых Советом Государственной Думы к рассмотрению Государственной Думой	981	15	86
Количество законопроектов, рассмотренных Государственной Думой в первом чтении	744	10	77
Количество законопроектов, всего рассмотренных Государственной Думой (или в первом, или во втором, или в третьем чтении)	829	12	77
Количество законопроектов, принятых Государственной Думой только в первом чтении	105	2	1
Количество законопроектов, принятых Государственной Думой только во втором чтении	3	0	0
Количество законов, принятых (одобренных) Государственной Думой - всего	452	8	76

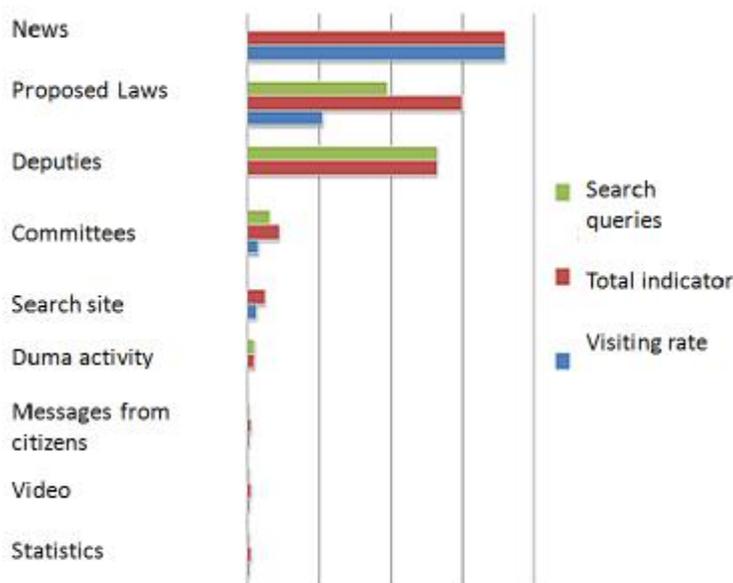*Statistics on proposed laws*

Overview of results

The renovation of the internet resource of the State Duma has brought vastly increased functionality, well-defined structure, and a level of design and engineering that matches the legislative body's needs, and those of visitors, in all aspects.

The structure of the Duma and how deputies fit into it is now very clear. Visitors to the site can find the main news, events, legislative activities, as well as see the international functions of the legislature. Citizens also can send their representatives their messages via the site, and processing of these inquiries has become much more orderly.
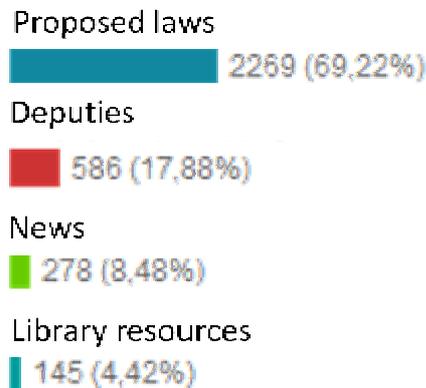
A very large bank of informational and analytical material that has been collected or produced in the process of developing appropriate proposals for laws is available through the site. It is also worth noting that this vast amount of information in this data store, in the parliamentary libraries and in the other sections of the site are all maintained stably and very well structured so that searches run smoothly and quickly.

Before launching the site, statistics of the previous version were taken. The developers wanted to know what was viewed most heavily. It turned out that information about deputies was of the greatest interest to visitors, that specific laws or proposed laws were in second place, and that news about the Duma was not viewed at all.

Project statistics

Soon after deployment of the new version of the website, users were polled concerning what was of most importance to them. Current proposed laws were of primary interest to 70% of visitors to http://www.duma.gov.ru/ , and information about deputies was top priority for 18% of them. Following that, news and the library-type resources came in at 9% and 4.4%, respectively.

Proposed laws
2269 (69,22%)

Deputies
586 (17,88%)

News
278 (8,48%)

Library resources
145 (4,42%)

In the same way, the developers tested and modeled user behavior and traffic for the Duma's site for the purpose of ensuring that the underlying system could handle even an energetic election season. Testing indicated that the constant load on the system of 3 million queries per day was easily handled, and that the maximum capacity of the system came in 50% higher than the requirement in the client's specifications.

Intaro also tested the user-side performance of the site by selecting the most popular user activities (from the old site) and measuring the performance of the new site for these actions.

Action	Convenience rating (1 to 5; visitor opinion poll)
Find news	4,75
Find information about deputies	5,00
Find proposed laws	4,87
Contact representative	5,00
Find video material	4,25

The results of testing showed that the number of errors had been reduced about 85% and the average time of fulfilling tasks or search queries was reduced no less than 30%.

Technical information

Platform: Bitrix Site Manager 9.5
Database: MySQL

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"When we configured the database, we increased the allocation of memory for fulfilling tasks; the configuration for InnoDB was approached separately. The recommendations in the Performance module of the Bitrix Site Manager were useful, as well," reported **Ilias Salikhov**, lead developer for the project.

Server:

Subsystem	Specifications
Processor	Dual Intel Xeon E5530 Quad-Core (2,4Gh 8Mb)
Operating memory	24 Gb
Hard Disk	16x147Gb SAS (10000 rpm) 2,5"

Comments from the developer

"Most of the key people on our team were directly involved in the State Duma website project, and development time was about 6 months. Much of the work went well beyond the framework of the specifications given by the client, and there were solutions and features developed which were removed before the final launch. The result is a site that is several times more useful to visitors than the previous version and which is an asset instead of a liability, for the client," said **Dmitri Borozdin**.

Client comment about the software program

"I would like to emphasize the wide functionality of the Bitrix Site Manager system which allowed us to realize all of the site sections, services, tools, and interactive features for the website of the State Duma of the Russian Federation," said **Alexander Vorontsov**, Head of the Documentation and Information Department of the State Duma.