

# Performance Audit of “\_\_\_\_\_” corporate portal

## 1. Site verification using standard Bitrix tools

### 1.1. Testing the configuration

No errors were detected.

Comments (these do not have an effect on performance):

1. The corporate portal does not have access to 2 files :

- /home/bitrix/www/company/timeman.php
- /home/bitrix/www/company/work\_report.php

2. The system stack size may not be large enough for PCRE functions to work correctly.

### *Configuration test*

The server configuration generally meets the requirements.

Производительность конфигурации на 13.04.2017 15:12:07 составляет 17.99

Подсистема	Оценка	Эталон	Примечание
Конфигурация	17.99	30	
Среднее время отклика	0.0556	0.0330	секунд
Процессор (CPU)	43.1	9.0	миллионов операций в секунду
Файловая система	5 436.8	10 000	файловых операций в секунду
Почтовая система	0.1688	0.0100	время отправки одного письма (в секундах)
Время старта сессии	0.0002	0.0002	секунд
Конфигурация PHP	оптимально	оптимально	<a href="#">рекомендации</a>
База данных MySQL (запись)	11 712	5 600	количество запросов на запись в секунду
База данных MySQL (чтение)	10 936	7 800	количество запросов на чтение в секунду
База данных MySQL (изменение)	7 642	5 800	количество запросов на изменение в секунду

[Тестировать конфигурацию](#)

### Web Server and Software Configuration

The settings were made correctly.

It is recommended to optimize the database if this has not been done for a long time.

## Настройки "Битрикс", непосредственно влияющие на производительность

Настройка	Значение	Рекомендации
Автокеширование компонентов	Включено	
Настройки модуля поиска	Включен быстрый морфологический поиск	
Хранение кеша	memcache	Возможные типы хранения: <ul style="list-style-type: none"><li>• Файлы</li><li>• memcached</li><li>• eAccelerator</li><li>• APC</li><li>• XCache</li></ul> <a href="#">Инструкция по настройке.</a>
Управляемый кеш	Включен	
Закодированные модули	Не найдены	
Оптимизация и анализ таблиц базы данных	Необходимо выполнить	<a href="#">Оптимизировать</a>

### 1.2. Testing site speed

Performance tests were carried out (in 1 hour, there were more than 11,000 requests).

Non-systemic long execution of arbitrary pages is observed.

There is a consistently long execution time for search results (average time: 91 seconds, 2 requests). About 40 seconds per search query.

For detailed analysis and recommendations, see below.

## 2. Analysis of sources reported by the client

**The task page takes a long time to open.**

No problems were found with tasks. Rather, a more general problem was discovered. , see the "Other problems" section.

**Delays after portal update.**

After a portal update, it's common for caches to be reset, which can in turn lead to a temporary decrease in performance.

This is normal.

### Search takes a long time.

Search on the portal is carried out by an external search engine - Sphinx.

The Fixed duration of a request to the engine index is quite long - (min. 13 seconds).

```
mysql> select * from default limit 1;
+-----+-----+-----+-----+
| id    | module_id | item_id  | param1_id | p
+-----+-----+-----+-----+
| 1    | 3207122276 | 3308559926 | 0
+-----+-----+-----+-----+
1 row in set (13.89 sec)
```

The request to Sphinx was profiled.

```
mysql> show profile;
+-----+-----+-----+
| Status          | Duration    | Switches |
+-----+-----+-----+
| unknown         | 0.000109   | 4        |
| net_read        | 0.000012   | 1        |
| dist_connect    | 13.896033  | 1        |
| sql_parse       | 0.000066   | 1        |
| dist_wait       | 0.000000   | 1        |
| aggregate       | 0.000048   | 1        |
| net_write       | 0.000020   | 1        |
+-----+-----+-----+
7 rows in set (0.00 sec)
```

A 13-second delay was detected when trying to connect to the remote distributed storage agents index ("dist\_connect").

The distributed index is neither configured nor enabled.

This connection does not take long to be established.

A potentially unstable version of Sphinx was detected: 2.1.3-id64-dev (r4319).

We believe that there is an error in this version, which is the reason why the distributed index (which does not exist)

### Recommendations:

- Install a stable version of Sphinx or carry out an update of the current version,
- If an update does not help the situation, analyze the server's network settings (firewall,

routing, resolving domain names, and other places that may cause delays in data transmission over the network), as well as the network infrastructure.

### The pages in Section “\_\_\_\_\_” take a long time to open

The il:schedule.index component (the “Scheduler” page) executes queries in a loop that take up most of the page execution time:

*File: /local/components/il/scheduler.index/class.php, line: 1829*

#### Recommendations:

- collect all \$row ['ID'] in an external loop,
- get all the data in one request (you can pass an array to the filter).

il:do.separate component (detailed page \_\_\_\_\_) executes a request to the infoblock “\_\_\_\_\_”:

*File: /local/components/il/do.separate/class.php, line: 1456*

Due to the large amount of data, the request takes a long time to complete.

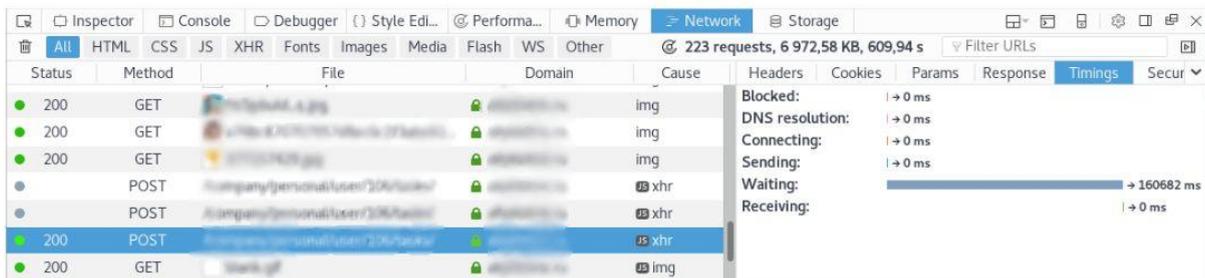
#### Recommendations:

- Create an index based on the PROPERTY\_1358 field (Transaction ID).

## 3. Other issues

### Spontaneous page loading delays.

For quick search (drop-down list at the search bar in the header), after the page loads, there are several AJAX requests that load data for quick search.



A request to the “search” module component is made, which uses Sphinx, making one or more more requests to its index. As a result of the described problems with Sphinx, the execution of these two AJAX requests can take up to 200 seconds.

Each AJAX request opens a PHP session (this is done automatically in prolog). the session ends only after the completion of the AJAX request handler. In PHP, sessions which are used as handler files, play a side role — they are synchronization tools. In other words, you can't open multiple sessions in parallel. Attempting to do this will result in waiting for another process to close the current session.

For example, if a single user performs three actions at the same time: each request having a duration of N seconds, their total execution time it will be no less than 3N.

The AJAX requests described above are executed asynchronously, i.e. they immediately try to open sessions.

Asynchronous requests do not block the browser, so the user can go to another page on the site. If the AJAX requests are not completed by this time, the request to open the page will be queued. The delay detected in section 1 occurs.

Thus, the amount of delay depends not only on the duration of Sphinx search queries, but also on the time that the user spent on the current page. This explains the spontaneous nature of delays.

**Recommendations:**

- follow the recommendations above regarding Sphinx,
- disable Sphinx and narrow the search area (in order to reduce the size of the search index) by time to solve problems with its configuration.

**Not recommended:**

- transfer session storage to memcached: there will be no locks, but there will be a risk of data loss

## 4. Others

Chapter “\_\_\_\_\_”:

No performance problems were detected: the number and duration of requests executed are within the normal range.

Rarely modified data is cached, this behaviour is correct.