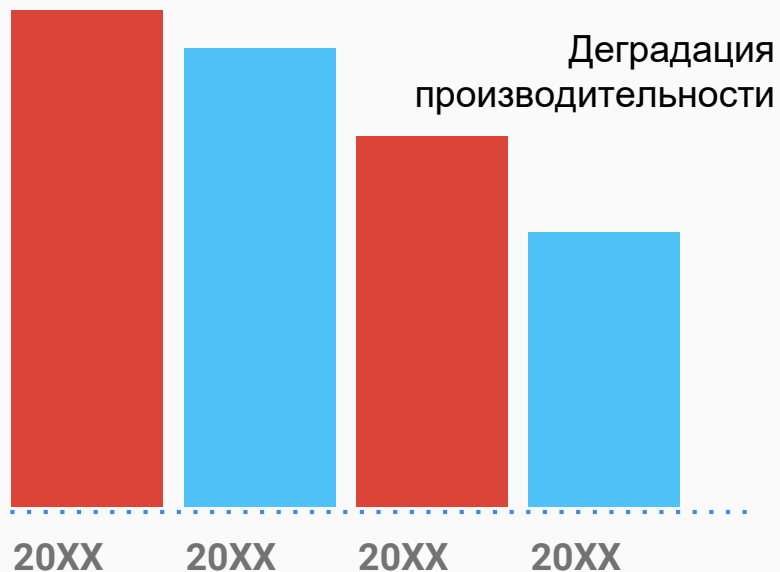
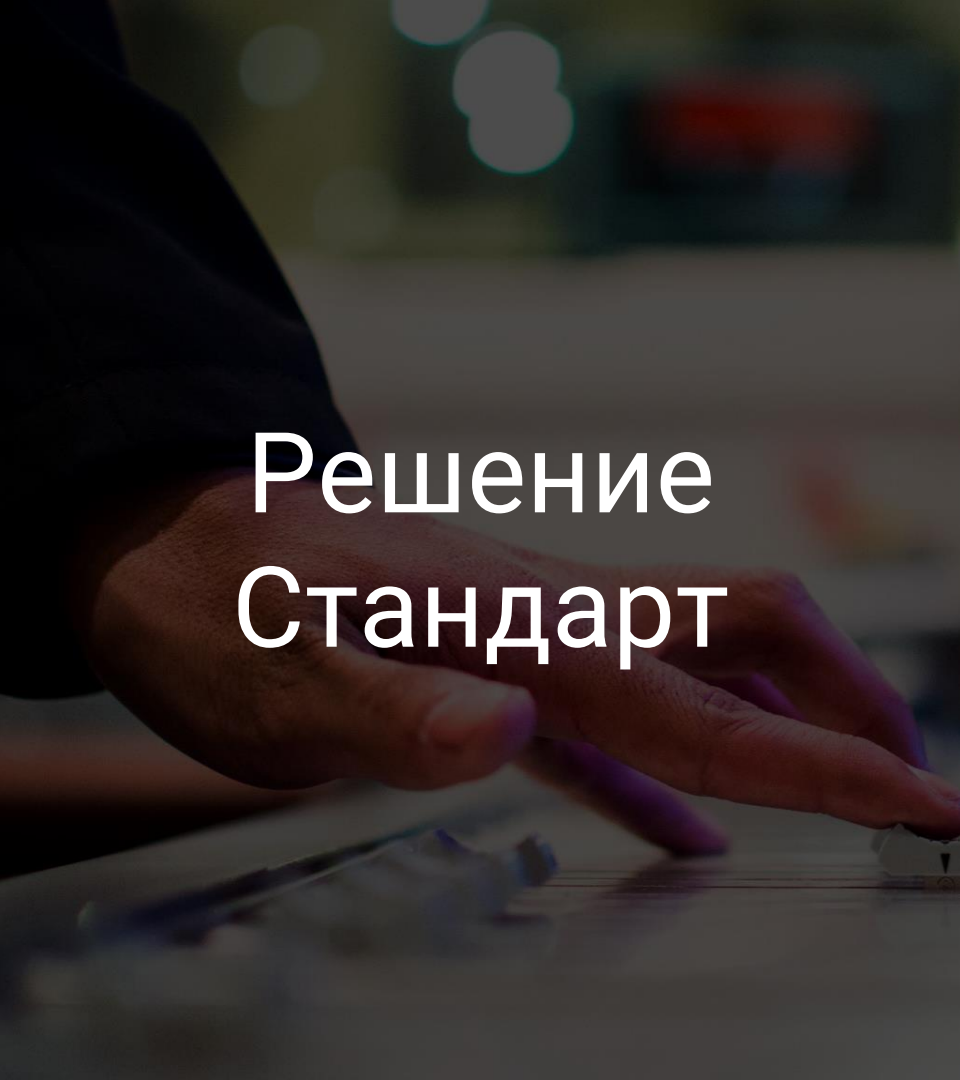
A laptop screen is shown in a dimly lit environment. The screen displays a data dashboard. At the top, there is a line graph with two data series: 'New Visitor' (represented by a blue line) and 'Returning Visitor' (represented by a green line). The x-axis of the graph is labeled '19 av.'. Below the graph is a pie chart with three segments: a large blue segment, a smaller green segment, and a very small red segment. The text 'New Visitor' and 'Returning Visitor' is visible above the pie chart. The overall scene is dark, with the laptop screen being the primary light source.

**Нестандарт -
или немного фантазии.**

Проблема

- Много старого железа;
- Маленький бюджет;
- Страх перед облаком.





Решение Стандарт

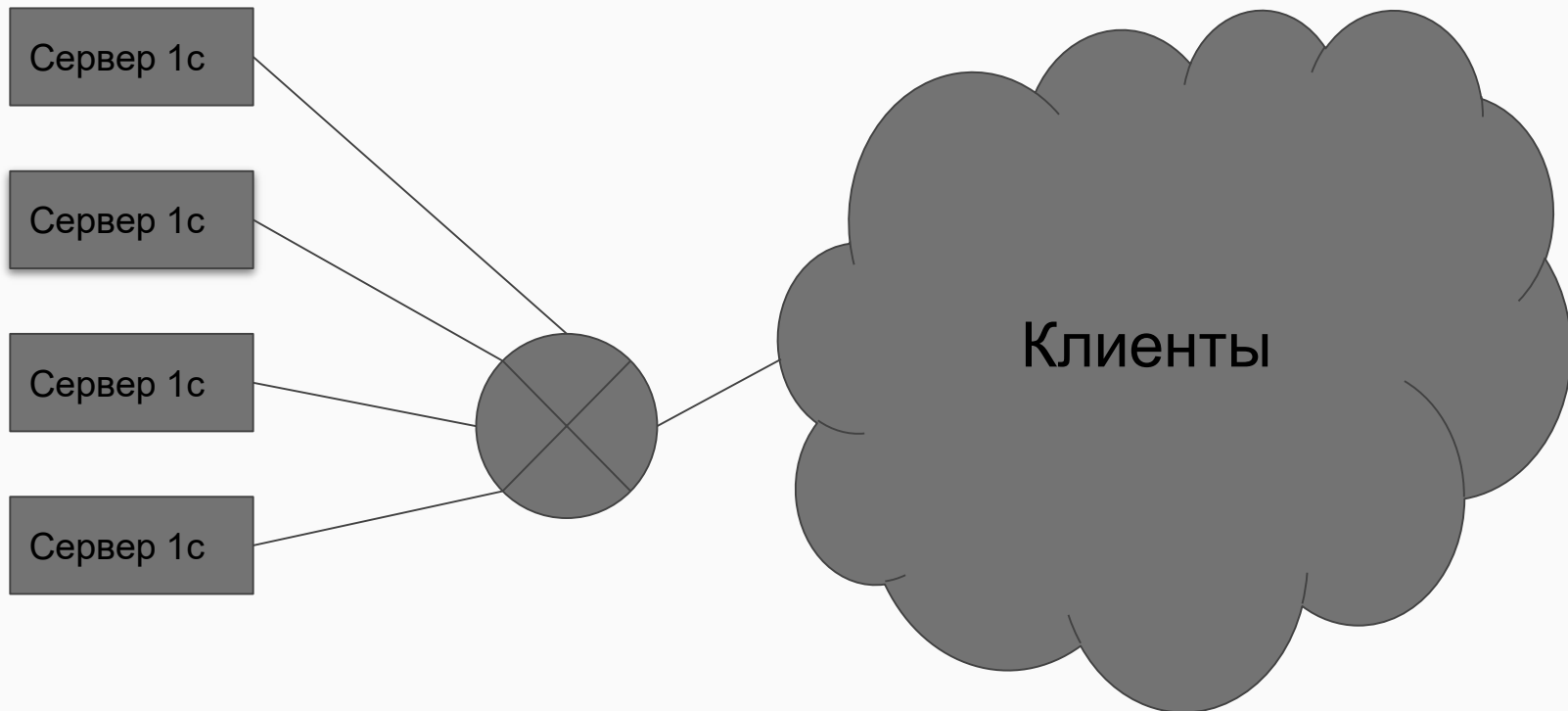
1 сервер - 1 ключ

2 сервера - 2 ключа

...

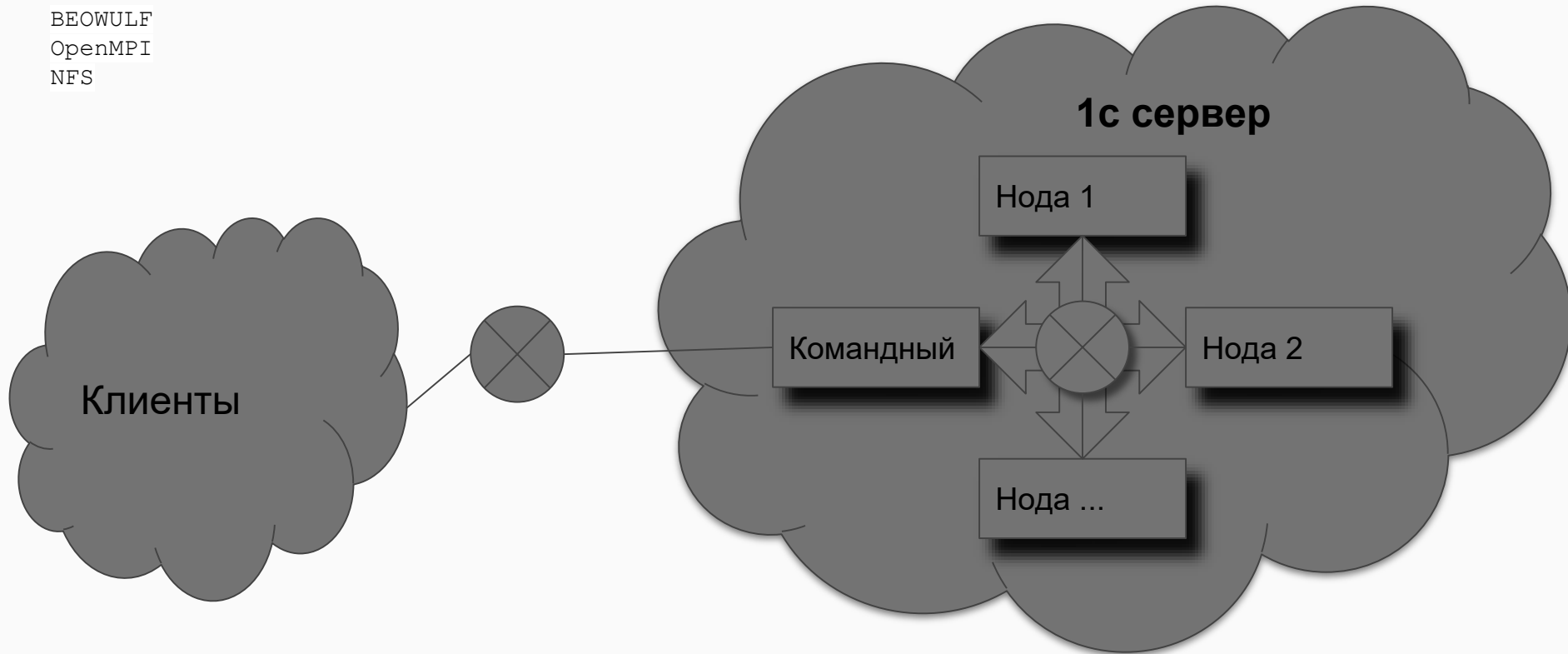
И так далее.

Принцип работы кластера 1с



Вектор решения нестандарт

BEOWULF
OpenMPI
NFS



Возможности GPU

Что должны увидеть

```
testserver:~$ ps aux|grep post
1412 0.0 0.8 11234160 266496 ?        S    16:56  0:01 /usr/lib/postgresql/9.6/bin/postgres -D /var/lib/postgresql/9.6/main -c config_file=/etc/postgresql/9.6/main/postgresql.conf
2011 0.2 0.2 11278272 69484 ?        Ss   16:56  0:05 postgres: 9.6/main: bgworker: PG-Strom Program Builder-1
2012 0.1 0.2 11277868 68864 ?        Ss   16:56  0:05 postgres: 9.6/main: bgworker: PG-Strom Program Builder-0
2013 0.0 0.3 24539236 101852 ?        Ssl  16:56  0:01 postgres: 9.6/main: bgworker: PG-Strom GPU memory keeper
2043 0.0 0.5 11234292 168816 ?        Ss   16:56  0:00 postgres: 9.6/main: checkpointer process
2044 0.0 0.2 11234160 85144 ?        Ss   16:56  0:00 postgres: 9.6/main: writer process
2045 0.0 0.0 11234160 22736 ?        Ss   16:56  0:00 postgres: 9.6/main: wal writer process
2046 0.0 0.0 11235060 9632 ?         Ss   16:56  0:00 postgres: 9.6/main: autovacuum launcher process
2047 0.1 0.1 252304 36860 ?         Ss   16:56  0:05 postgres: 9.6/main: stats collector process
9922 1.4 0.0 0 0 ?          Ds   17:12  0:25 [postgres]
9959 0.8 0.0 0 0 ?          Ds   17:12  0:15 [postgres]
11129 0.5 0.0 0 0 ?          Zsl  17:15  0:08 [postgres] <defunct>
```

```
sebys@testserver:~$ nvidia-smi
Tue Jan 15 17:42:01 2019

+-----+
| NVIDIA-SMI 410.79          Driver Version: 410.79          CUDA Version: 10.0          |
+-----+-----+-----+-----+-----+
| GPU Name      Persistence-M| Bus-Id        Disp.A | Volatile Uncorr. ECC |
| Fan  Temp  Perf  Pwr:Usage/Cap|      Memory-Usage | GPU-Util  Compute M. |
+-----+-----+-----+-----+-----+
| 0  GeForce GTX 105...  Off | 00000000:01:00.0 Off |           N/A       |
| 0%  54C    P0     N/A / 75W |  94MiB /  4036MiB |           0%      Default  |
+-----+-----+-----+-----+-----+

Processes:
+-----+-----+-----+-----+-----+
| GPU  PID  Type  Process name                      GPU Memory |
|      |      |      |                      Usage          |
+-----+-----+-----+-----+-----+
| 0    1925  G    /usr/lib/xorg/Xorg                  39MiB     |
| 0    2013  C    ...bgworker: PG-Strom GPU memory keeper  43MiB     |
+-----+-----+-----+-----+-----+
```

H110M-S2PV-CF
GeForce GTX 1050 Ti
Intel(R) Core(TM) i3-6100

В работе

```
1 [|||||]
2 [|||||]
3 [|||||]
4 [|||||]
Mem[|||||]
Swp[|||||]

7.4%] Tasks: 105, 265 thr; 1 running
38.6%] Load average: 2.13 1.45 0.82
10.1%] Uptime: 00:19:40
12.5%]
2.74G/31.4G]
0K/0K]
```

| PID | USER | PRI | NI | VIRT | RES | SHR | S | CPU% | MEM% | TIME+ | Command |
|-------|----------|-----|----|-------|-------|-------|---|------|------|---------|---|
| 2724 | postgres | 20 | 0 | 10.8G | 118M | 93328 | S | 39.0 | 0.4 | 3:05.24 | postgres: 9.6/main: postgres test 127.0.0.1(57000) BIND |
| 2425 | usr1cv8 | 20 | 0 | 2822M | 1063M | 195M | S | 13.2 | 3.3 | 2:44.05 | /opt/1C/v8.3/x86_64/rphost -range 1560:1591 -reghost testserver -regport 1541 -pid 9566152c-18c4-11e9-2683-1c1b0d318d07 |
| 2717 | usr1cv8 | 20 | 0 | 2822M | 1063M | 195M | S | 11.9 | 3.3 | 1:59.40 | /opt/1C/v8.3/x86_64/rphost -range 1560:1591 -reghost testserver -regport 1541 -pid 9566152c-18c4-11e9-2683-1c1b0d318d07 |
| 2139 | usr1cv8 | 20 | 0 | 2204M | 144M | 79180 | S | 6.6 | 0.4 | 0:58.44 | /opt/1C/v8.3/x86_64/rmgr_bac -port 1541 -host testserver -range 1560:1591 -clstid 946b3314-18c4-11e9-2683-1c1b0d318d07 |
| 9959 | postgres | 20 | 0 | 24.6G | 429M | 393M | D | 4.6 | 1.3 | 0:09.20 | postgres: 9.6/main: postgres aktivplusb 127.0.0.1(57094) idle |
| 2408 | usr1cv8 | 20 | 0 | 2204M | 144M | 79180 | S | 4.6 | 0.4 | 0:20.89 | /opt/1C/v8.3/x86_64/rmgr_bac -port 1541 -host testserver -range 1560:1591 -clstid 946b3314-18c4-11e9-2683-1c1b0d318d07 |
| 11173 | usr1cv8 | 20 | 0 | 2822M | 1063M | 195M | S | 2.0 | 3.3 | 0:00.20 | /opt/1C/v8.3/x86_64/rphost -range 1560:1591 -reghost testserver -regport 1541 -pid 9566152c-18c4-11e9-2683-1c1b0d318d07 |
| 10760 | sebys | 20 | 0 | 32576 | 5092 | 3872 | R | 2.0 | 0.0 | 0:00.65 | htop |
| 2155 | usr1cv8 | 20 | 0 | 1709M | 104M | 79512 | S | 1.3 | 0.3 | 0:11.69 | /opt/torg/v8.3/x86_64/rmgr -port 2541 -host testserver -range 2560:2691 -d /home/usr1cv8/.1cv83_torg/1C/1Cv83/ -debug -tcp |
| 2144 | usr1cv8 | 20 | 0 | 1001M | 38444 | 27108 | S | 0.7 | 0.1 | 0:06.03 | /opt/torg/v8.3/x86_64/ragent -daemon -port 2540 -regport 2541 -d /home/usr1cv8/.1cv83_torg/1C/1Cv83 -range 2560:2691 -debug |
| 9922 | postgres | 20 | 0 | 19.9G | 468M | 389M | S | 0.7 | 1.5 | 0:16.04 | postgres: 9.6/main: postgres aktivplusb 127.0.0.1(57092) INSERT |
| 2336 | usr1cv8 | 20 | 0 | 2204M | 144M | 79180 | S | 0.7 | 0.4 | 0:02.29 | /opt/1C/v8.3/x86_64/rmgr_bac -port 1541 -host testserver -range 1560:1591 -clstid 946b3314-18c4-11e9-2683-1c1b0d318d07 |
| 2767 | usr1cv8 | 20 | 0 | 1709M | 104M | 79512 | S | 0.7 | 0.3 | 0:02.15 | /opt/torg/v8.3/x86_64/rmgr -port 2541 -host testserver -range 2560:2691 -d /home/usr1cv8/.1cv83_torg/1C/1Cv83/ -debug -tcp |
| 1454 | root | 20 | 0 | 20060 | 88 | 0 | S | 0.7 | 0.0 | 0:00.98 | aksusbd |
| 2013 | postgres | 20 | 0 | 23.4G | 99M | 93132 | S | 0.7 | 0.3 | 0:00.91 | postgres: 9.6/main: ..bgworker: PG-Strom GPU memory keeper |
| 2395 | usr1cv8 | 20 | 0 | 1709M | 104M | 79512 | S | 0.7 | 0.3 | 0:00.47 | /opt/torg/v8.3/x86_64/rmgr -port 2541 -host testserver -range 2560:2691 -d /home/usr1cv8/.1cv83_torg/1C/1Cv83/ -debug -tcp |

F1Help F2Setup F3Search F4Filter F5Tree F6SortBy F7Nice F8Nice F9Kill F10Quit

Every 1.0s: nvidia-smi

Tue Jan 15 17:15:18 2019

| NVIDIA-SMI 410.79 Driver Version: 410.79 CUDA Version: 10.0 | | | | | | | | | |
|---|--------------------|---------------|------------------|------------------|------------------|------------|-------------|------------|--|
| GPU | Name | Persistence-M | Bus-Id | Disp.A | Memory-Usage | GPU-Util | Uncorr. ECC | Compute M. | |
| Fan | Temp | Perf | Pwr:Usage/Cap | Memory-Usage | GPU-Util | Compute M. | | | |
| 0 | GeForce GTX 105... | Off | 00000000:01:00:0 | On | 284MiB / 4036MiB | 0% | N/A | Default | |
| 0% | 40C | P0 | N/A / 75W | 284MiB / 4036MiB | 0% | Default | | | |

| Processes: | | | | | GPU Memory Usage |
|------------|------|------|---|--|------------------|
| GPU | PID | Type | Process name | | Usage |
| 0 | 1925 | G | /usr/lib/xorg/Xorg | | 48MiB |
| 0 | 2013 | C | ..bgworker: PG-Strom GPU memory keeper | | 43MiB |
| 0 | 9959 | C | ..gres aktivplusb 127.0.0.1(57094) INSERT | | 45MiB |

Выполнить тест ->

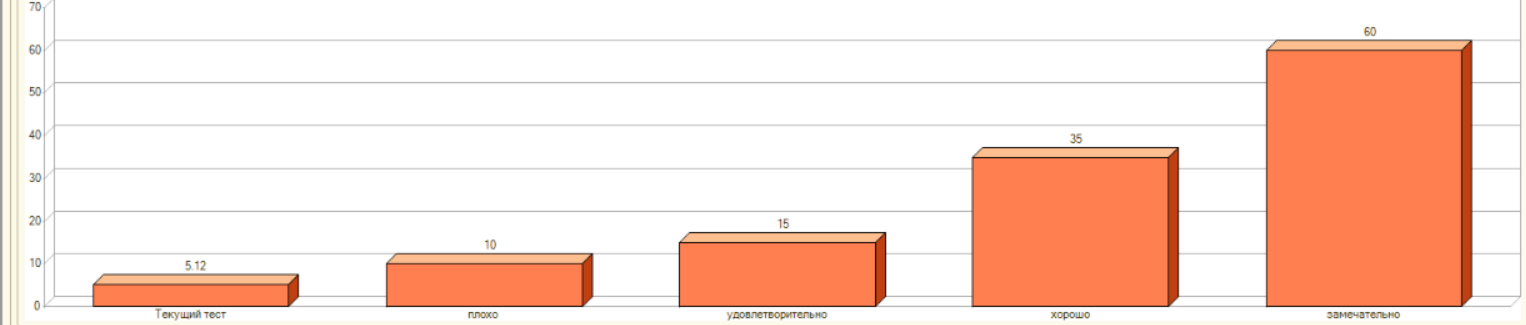
100%

Состояние: **TPC: Тест завершен!**

Результат теста TPC (Однопоточный синтетический тест платформы 1С:Предприятие)

Результаты теста

TPC-A-local Throughput



Результат теста GIC (Компонентное тестирование 1С - многопоточная запись на диск)

| Размер строки (КБ): | Макс. скорость 1 поток (КБ/с): | Рекомендуемое кол-во пользователей (примерно): | Максимальная скорость (КБ/с): |
|--------------------------------|--------------------------------|--|--------------------------------|
| <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="0"/> |

Имя пользователя:

Имя компьютера:

Марка процессора:

частота процессора: сокетов: ядер:

Объем памяти: частота памяти:

Материнская плата:

Марка жесткого диска:

Имя сервера 1С:

Имя сервера СУБД:

Версия платформы:

Архитектура:

СУБД:

Комментарий: