| | |
|---|---|
| 参考文档 ： | 无 |
| 版　　本 ： | 2.0 |
| 日　　期 ： | 2013-1-17 |
| 状　　态: | |

| | |
|---|---|
| 项目名称 ： | EPG |
| 项目编号 ： | |
| 题目: | 性能测试报告 |

| | 名字 |
|---|---|
| 作者 ： | 魏林 |
| 技术控制: | 产品经理<br><br>测试部经理<br>张伟<br>项目经理 |
| 测试工程师 ： | |

| 编号 | 版本 | 内容 | 修改人 | 时间 |
|---|---|---|---|---|
| 1 | V2.0 | 性能测试 | | 2013-1-17 |
| | | | | |
| | | | | |

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# 1 编写目的

## 1.1 目的

为 EPG 所能承受的性能提供参考，为项目负责人和开发人员提供相关的性能指标。

## 1.2 范围

该文档适用于 EPG 项目组等。

# 2 参考文档

无

# 3 专业术语

Paging rate :UNIX 资源监控中指标内存页交换速率，如果该值偶尔走高，表明当时有线程竞争内存。如果持续很高，则内存可能是瓶颈。也可能是内存访问命中率低。

Request Per Second (RPS): 每秒处理请求数 – 指示服务器平均每秒钟能处理的用户事务请求数量。

CPU Utilization :CPU 的利用率.

# 4 测试时间和投入人力

1）测试时间

2013-1-14 至 2013-1-17 总共 4 工作日。

2）投入人力

测试工程师 1 人。

# 5 性能测试

## 5.1 测试范围

注：测试环境为运维人员搭建；测试范围为 EPG 技术开发负责人陈圣文提供；硬件和网络环境均为南京广电提供。

(1)首页
http://172.31.200.12

(2)导航页
http://172.31.200.12/list

(3)影片库
http://172.31.200.12/vod

(4)频道列表
http://172.31.200.12/channel/list

(5)搜索页
http://172.31.200.12/search

(6)媒资详情
http://172.31.200.12/wiki/show/slug/破碎之城

(7)专题详情
http://172.31.200.12/theme/show/tid/29

## *5.2 并发测试*

场景条件设置

1）立即初始化所有虚拟用户

2）初始化完成后立即执行，直到运行完

## 5.3 执行测试

并发不同虚拟用户数，关闭服务器端缓存，以此验证最优的性能。

### 5.3.1 首页

#### 5.3.1.1 并发 150 虚拟用户

# 1）总体概述

Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 150 |
| Total Throughput (bytes): | | 64,227,144 |
| Average Throughput (bytes/second): | | 3,568,175 |
| Total Hits: | | 6,536 |
| Average Hits per Second: | | 363.111 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

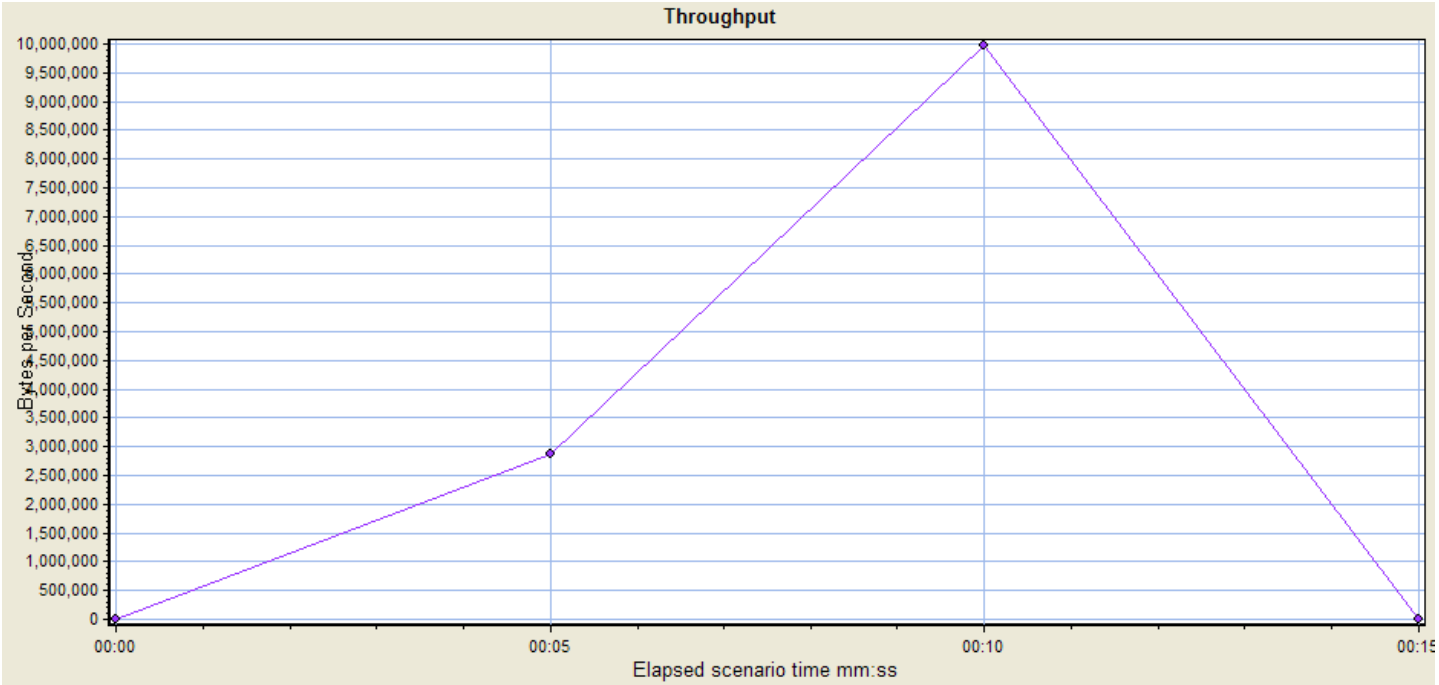
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 452 Total Failed: 0 Total Stopped: 0 Average Response Time

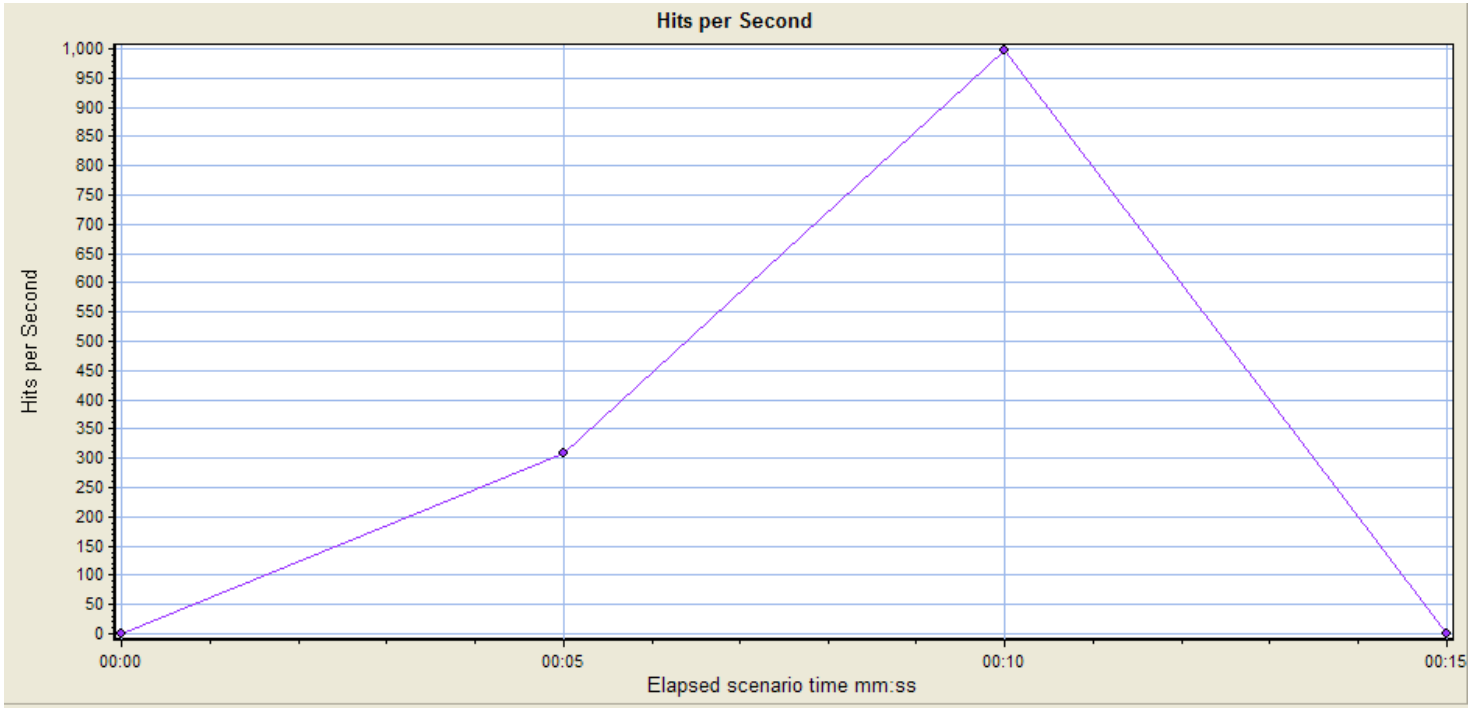
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 1.844 | 6.931 | 14.101 | 1.768 | 8.559 | 152 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 150 | 0 | 0 |

(2)吞吐量




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 3568174.667 | 9972109.2 | 2873319.6 | 4075771.926 |

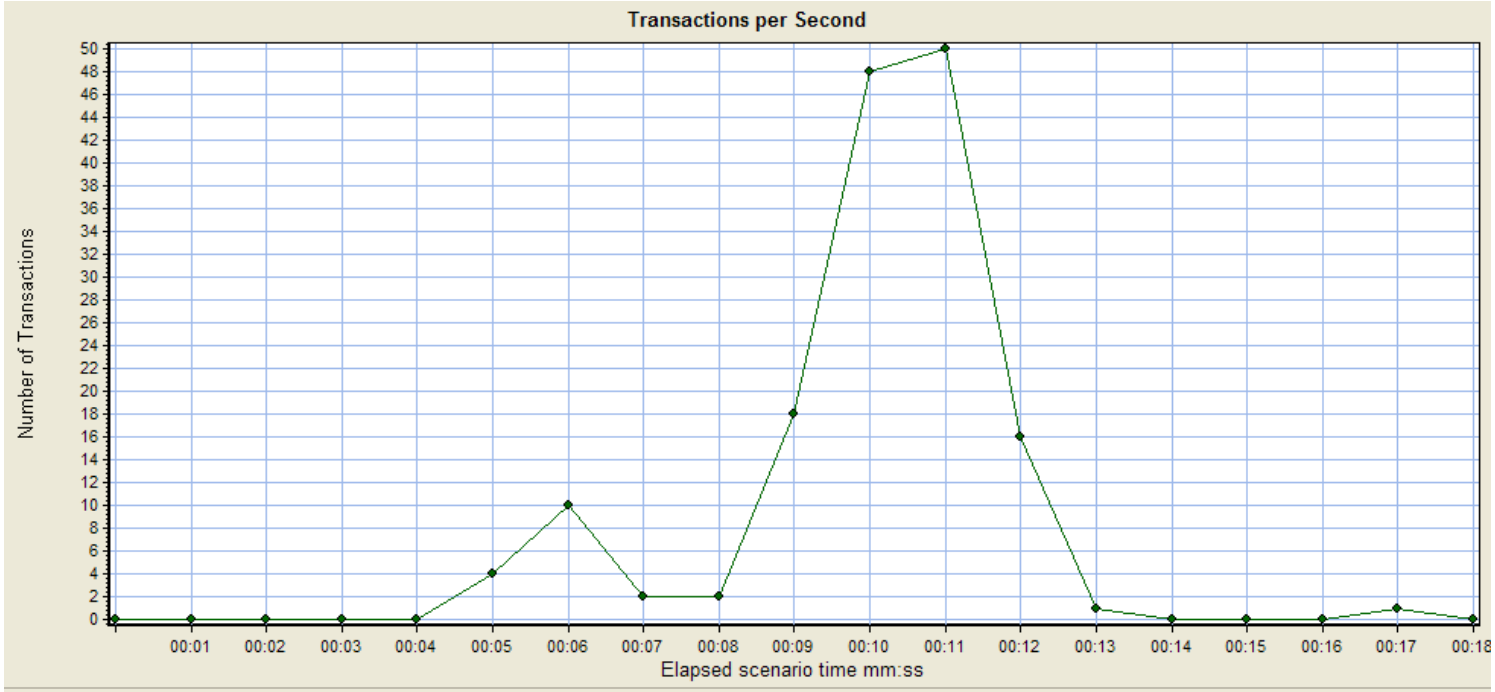
(3)点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 363.111 | 997.6 | 309.6 | 407.39 |

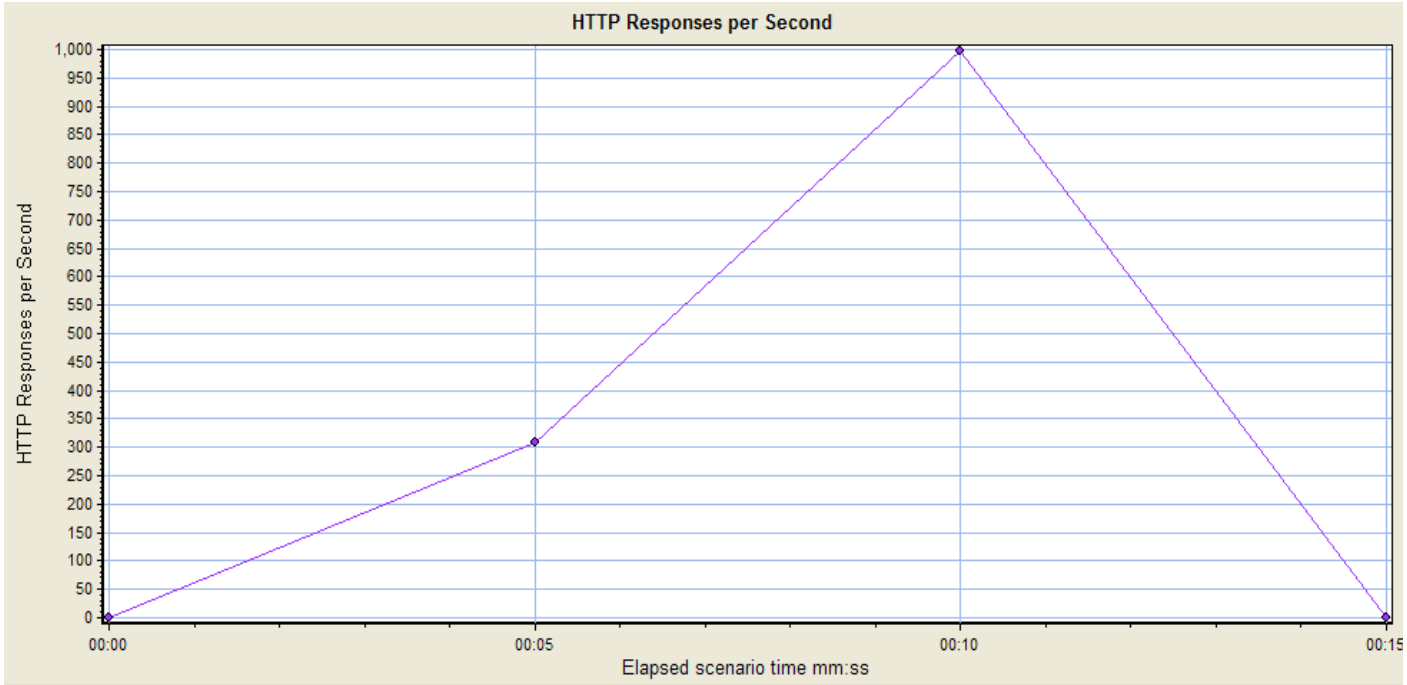
## (4)TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 8.444 | 50 | 1 | 15.033 |

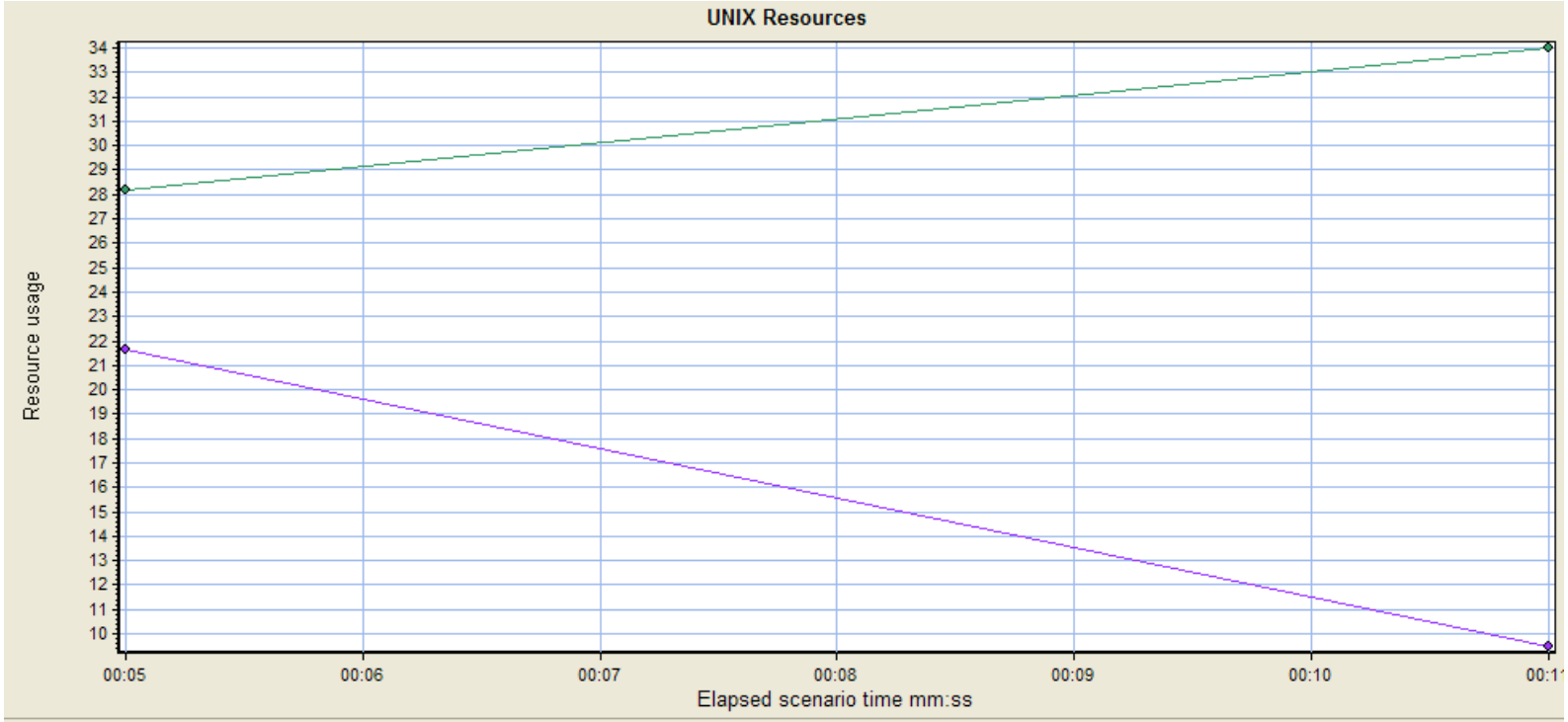
## (5)RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 363.111 | 997.6 | 309.6 | 407.39 |

## (6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 9.478 | 15.563 | 21.648 | 6.085 |
| | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 282 | 311 | 340 | 29 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Second s） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate (min->aver->max) |
| 150 | 1.844 | 6.931 | 14.101 | 64,227,144 | 0 | 363.111 | 997.6 | 0 | 8.444 | 50 | 0 | 363.111 | 997.6 | 9.478,15.563,21.648 | 28.2,31.1,34.0 |

### 5.3.1.2 并发 180 虚拟用户

1）总体概述

Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 180 |
| Total Throughput (bytes): | | 82,923,287 |
| Average Throughput (bytes/second): | | 4,146,164 |
| Total Hits: | | 8,629 |
| Average Hits per Second: | | 431.45 |
| Total Errors: | | 33 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

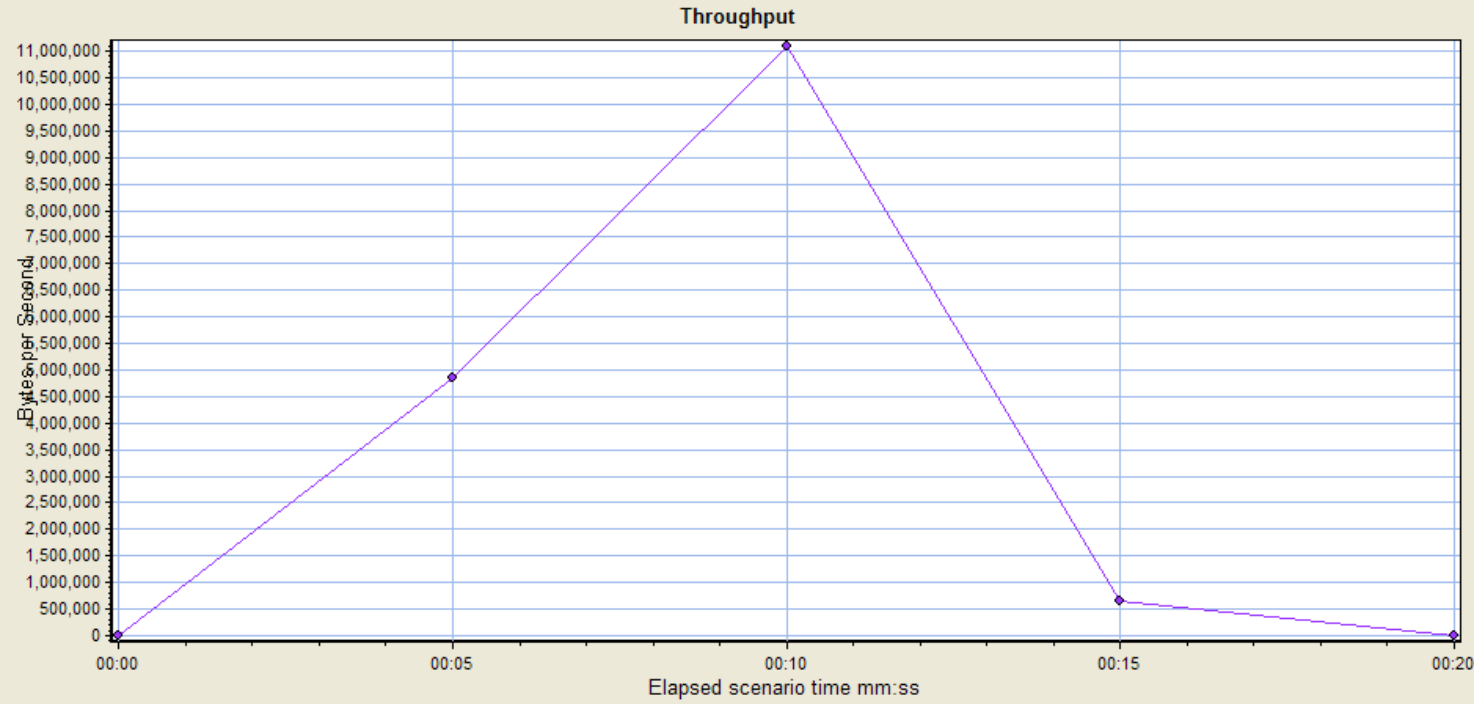
| Measurement Name | Time Ranges | | | | |
|---|---|---|---|---|---|
| Application Under Test Errors | 6.6 | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 | 00:00:20 |

Transaction Summary

Transactions: Total Passed: 553 Total Failed: 33 Total Stopped: 0 Average Response Time

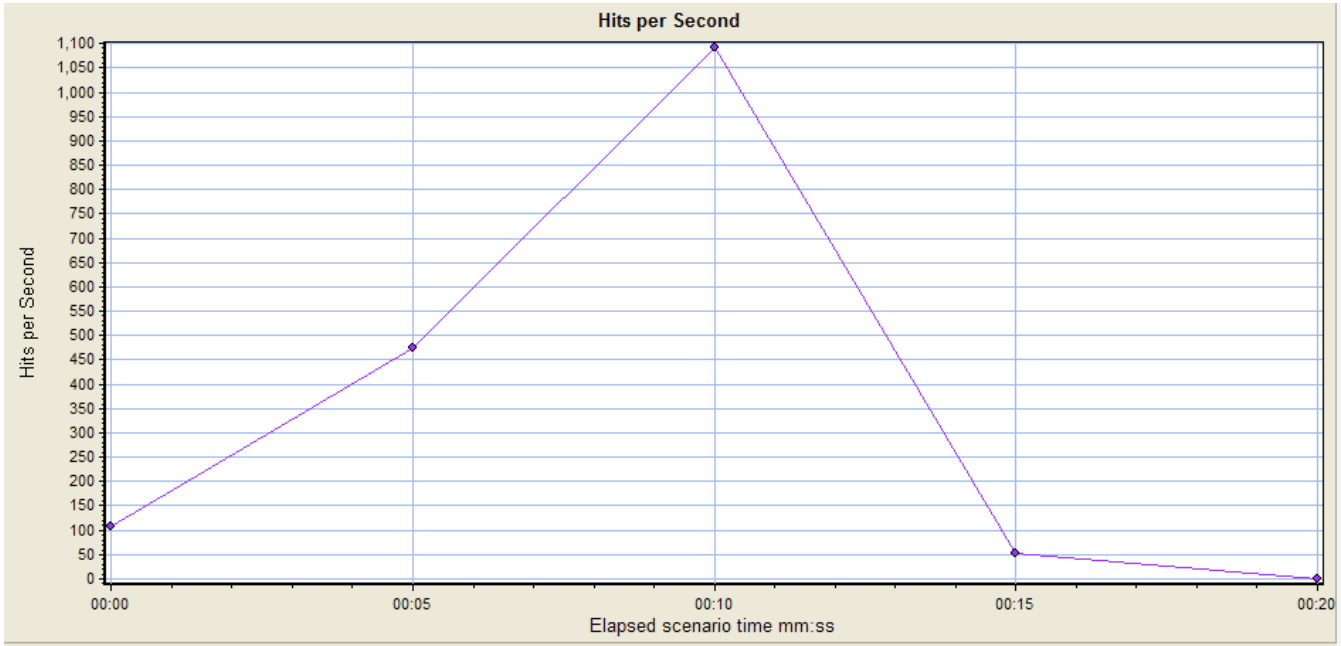
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 1.199 | 6.654 | 15.002 | 3.221 | 9.164 | 193 | 33 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 180 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.005 | 0.001 | 0.005 | 180 | 0 | 0 |

(2)吞吐量




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 4146164.35 | 11091536.8 | 655242 | 4285940.452 |

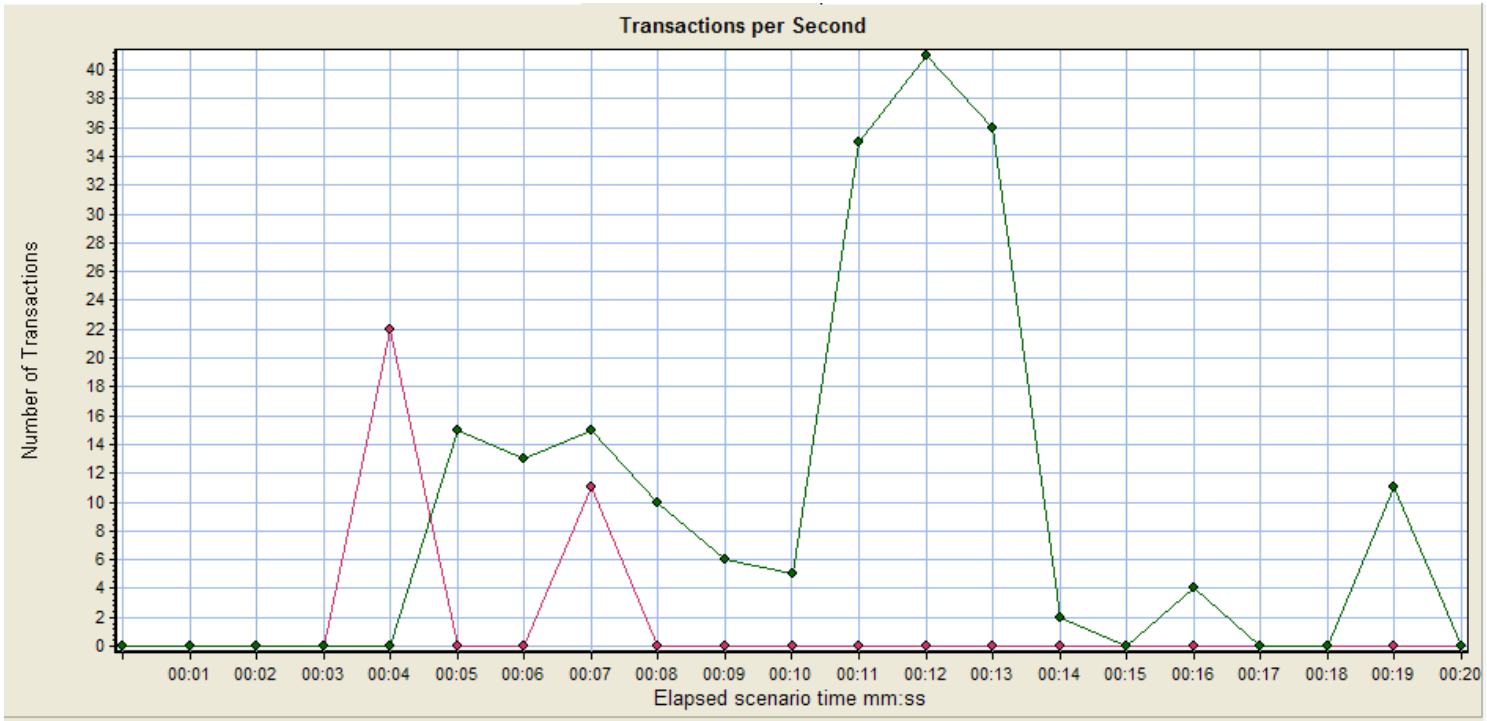
(3)点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 431.45 | 1092.2 | 106.4 | 409.244 |

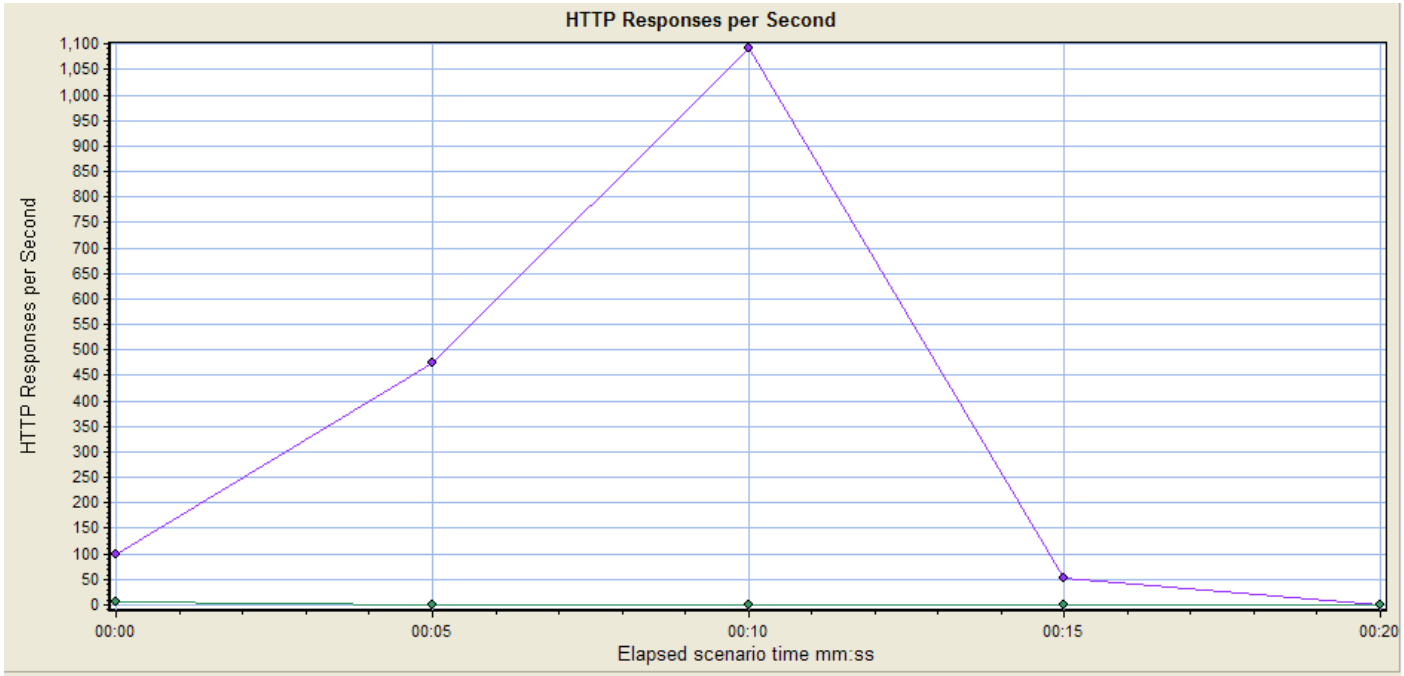
## (4)TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 9.65 | 41 | 4 | 12.629 |
| ☑ | 1 | Action_Transaction:Fail | 0 | 1.65 | 22 | 0 | 5.132 |

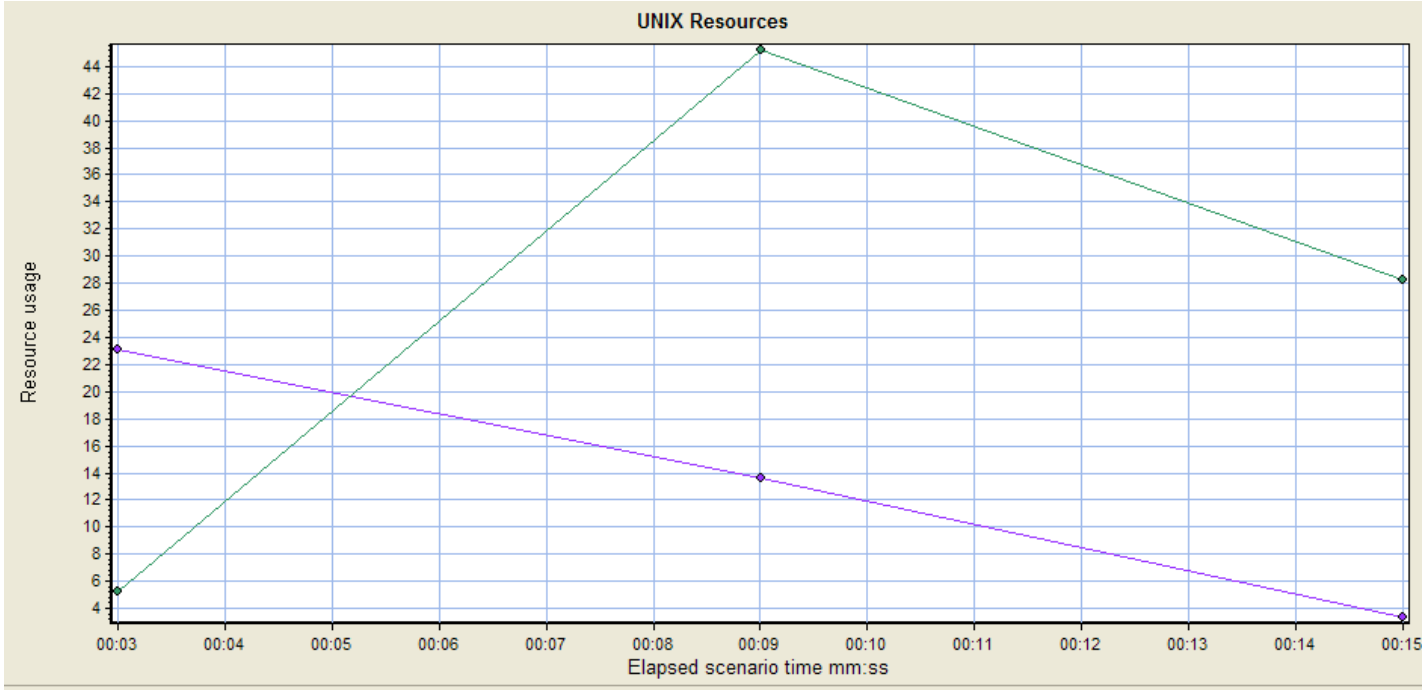
## (5)RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | HTTP_200 | 0 | 429.8 | 1092.2 | 99.8 | 410.022 |
| | 1 | HTTP_404 | 0 | 1.65 | 6.6 | 0 | 2.64 |

## (6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 3.342 | 13.354 | 23.104 | 8.07 |
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 52.667 | 262.222 | 452 | 163.626 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS（Transactions per Seconds） | | | RPS（Responses per Seconds） | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 150 | 1.844 | 6.931 | 14.101 | 64,227,144 | 0 | 363.111 | 997.6 | 0 | 8.444 | 50 | 0 | 363.111 | 997.6 | 9.478,15.563,21.648 | 28.2,31.1,34.0 |
| 180 | 1.199 | 9.164 | 15.002 | 82,923,287 | 0 | 431.45 | 1092.2 | 0 | 9.65 | 41 | 0 | 429.8 | 1092.2 | 3.342,13.354,23.104 | 52.667,262.22,452 |

**小结：**

在运行 180 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resour

ce temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request : "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 23.104%，Paging Rate 最高为 452 * 0.1=45.2,吞吐量最大为：82,923,287Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，首页该单台所能承受的并发最好情况为 180.

### 5.3.2 导航页

#### 5.3.2.1 并发 200 虚拟用户

# 1）总体概述

Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 200 |
| Total Throughput (bytes): | | 26,178,012 |
| Average Throughput (bytes/second): | | 1,454,334 |
| Total Hits: | | 4,135 |
| Average Hits per Second: | | 229.722 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

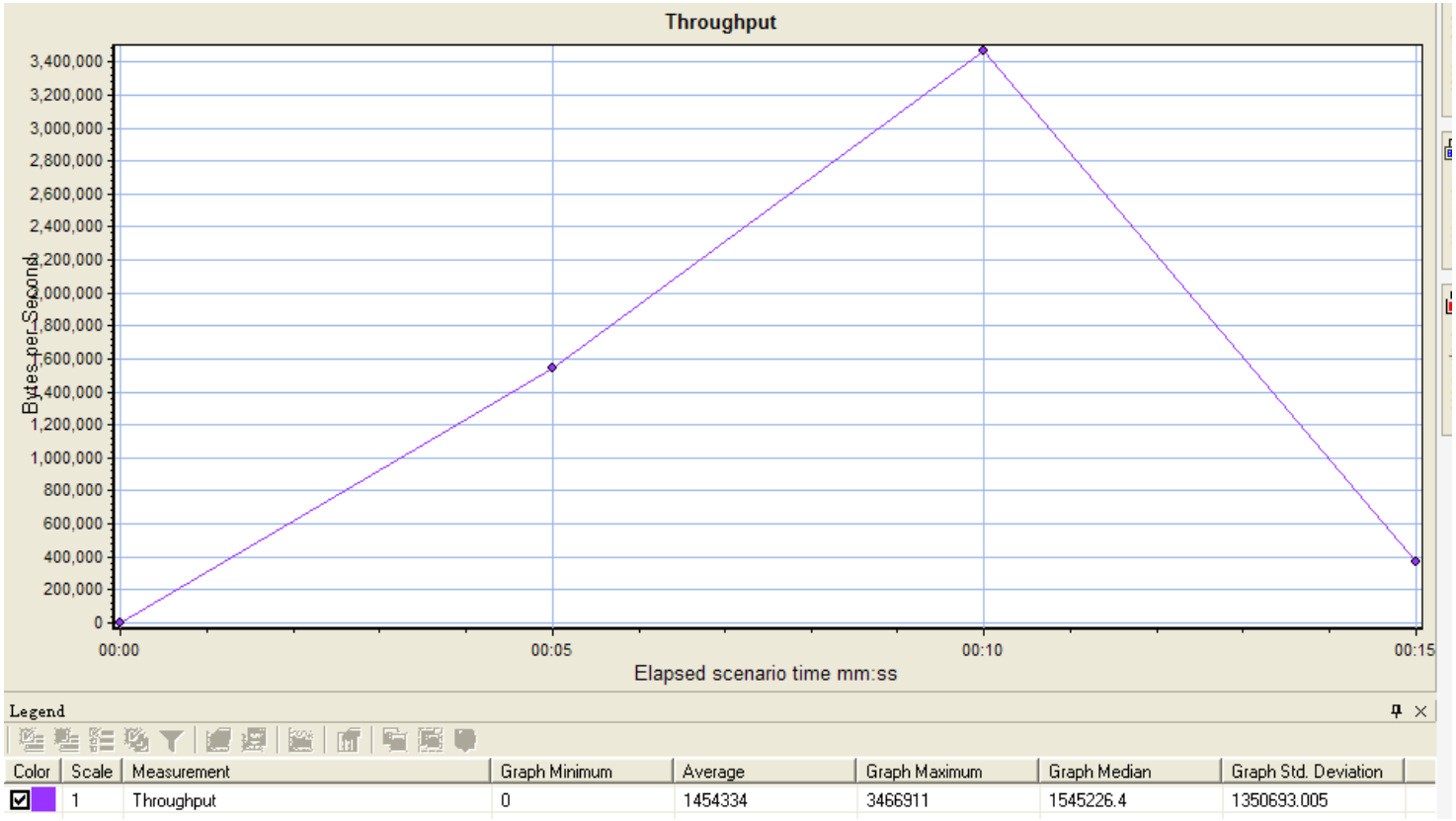
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

Transaction Summary

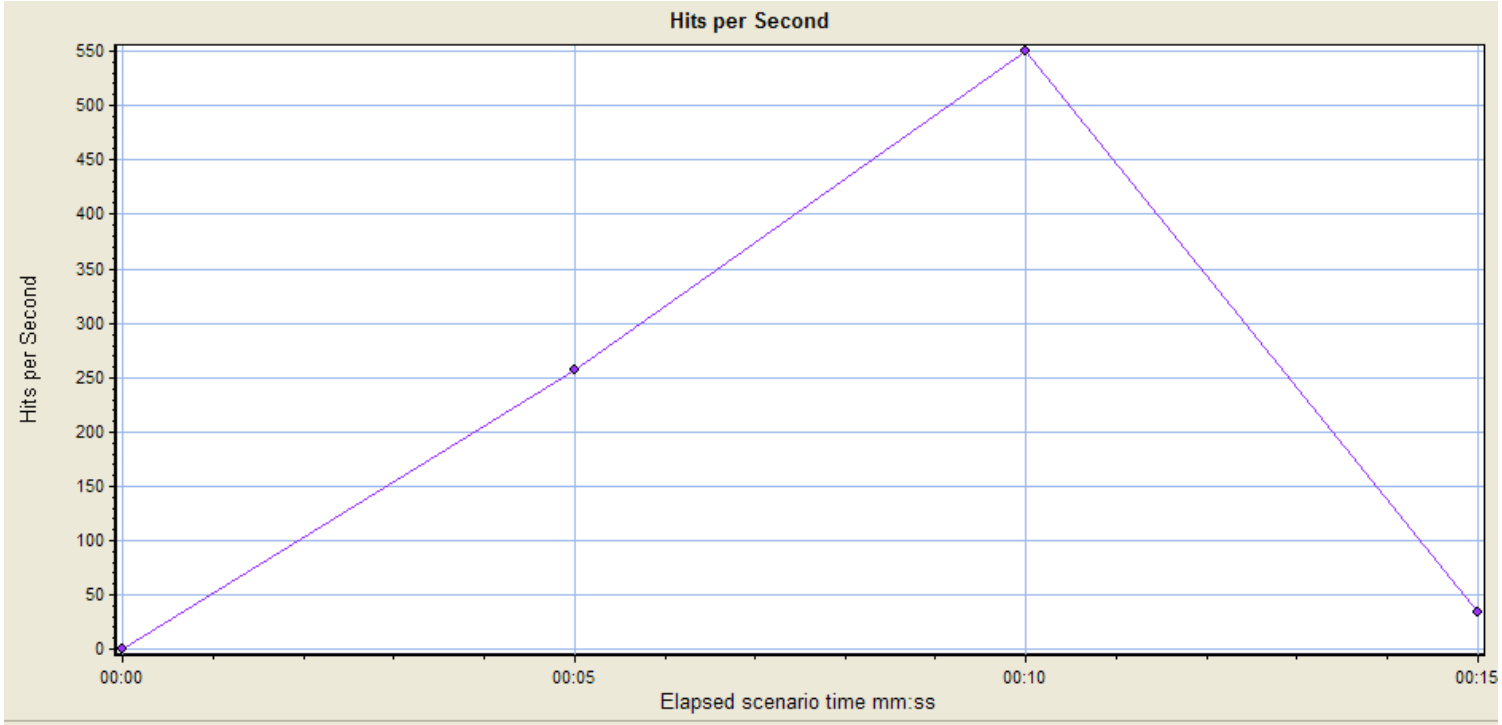
Transactions: Total Passed: 600 Total Failed: 0 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 7.933 | 9.915 | 13.395 | 1.044 | 10.623 | 200 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 200 | 0 | 0 |

(2)吞吐量


Throughput
Bytes per Second
3,400,000
3,200,000
3,000,000
2,800,000
2,600,000
2,400,000
2,200,000
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
00:00
00:05
00:10
00:15
Elapsed scenario time mm:ss
Legend
Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation
1 | Throughput | 0 | 1454334 | 3466911 | 1545226.4 | 1350693.005

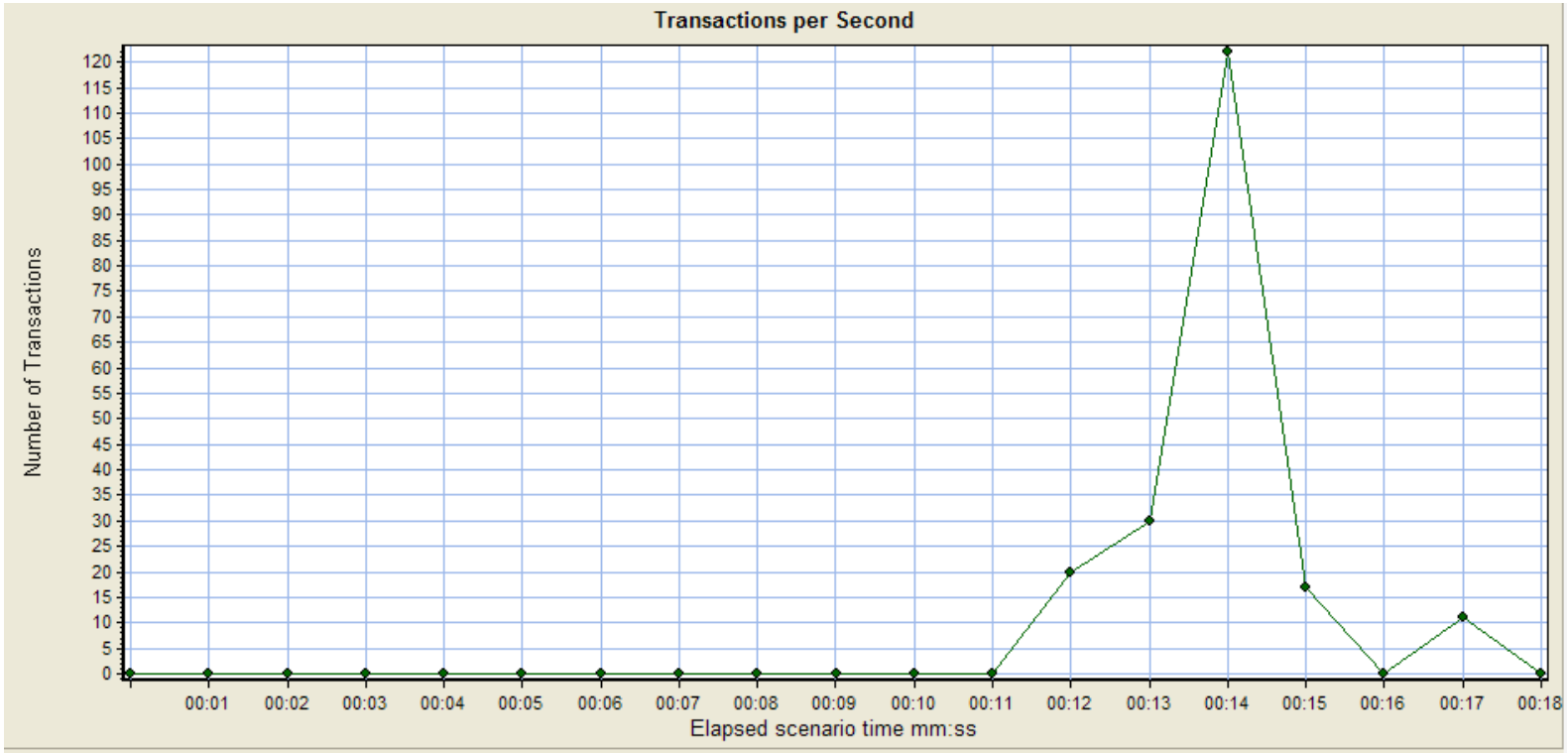
(3)点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 229.722 | 550.4 | 256.2 | 219.706 |

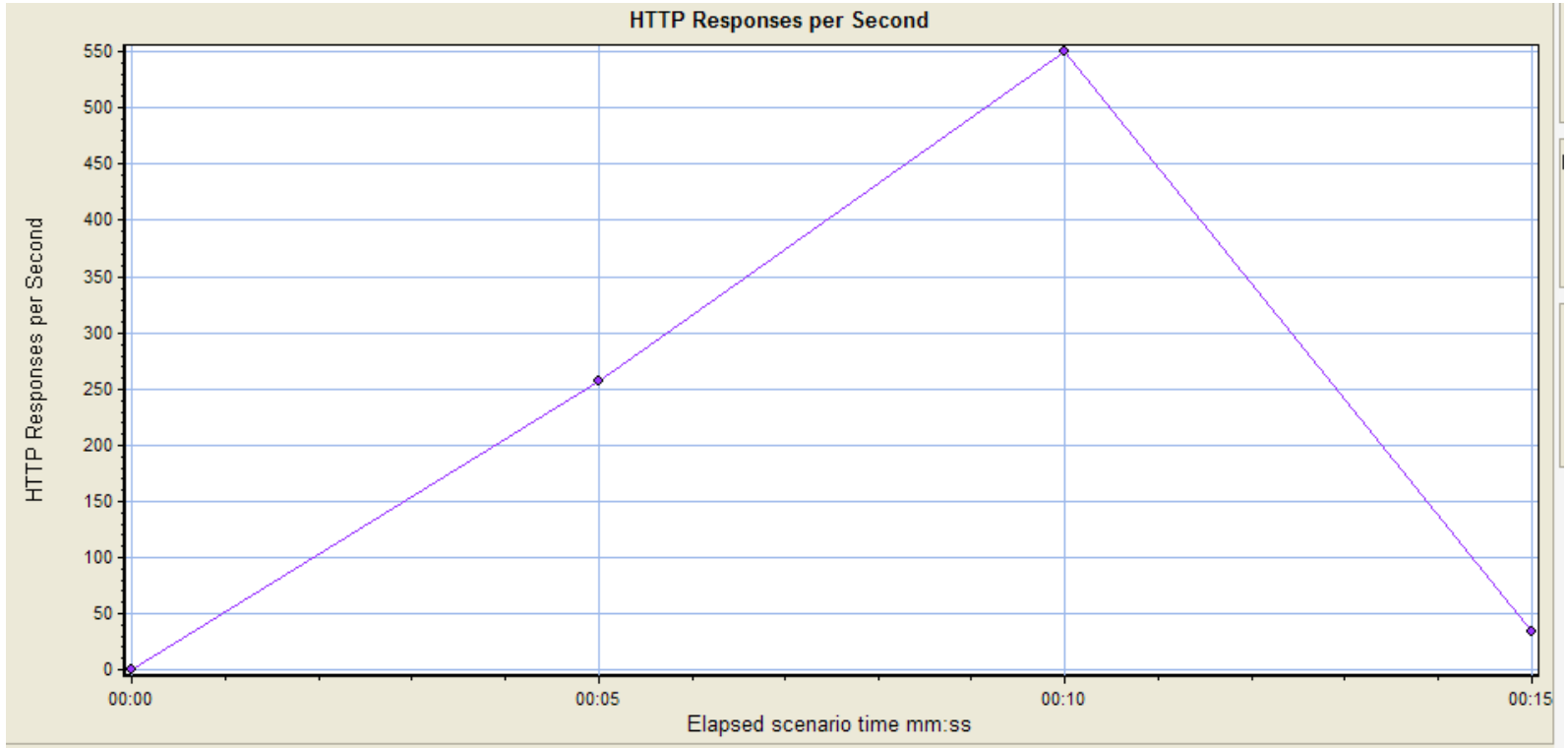
(4)TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 11.111 | 122 | 0 | 27.615 |

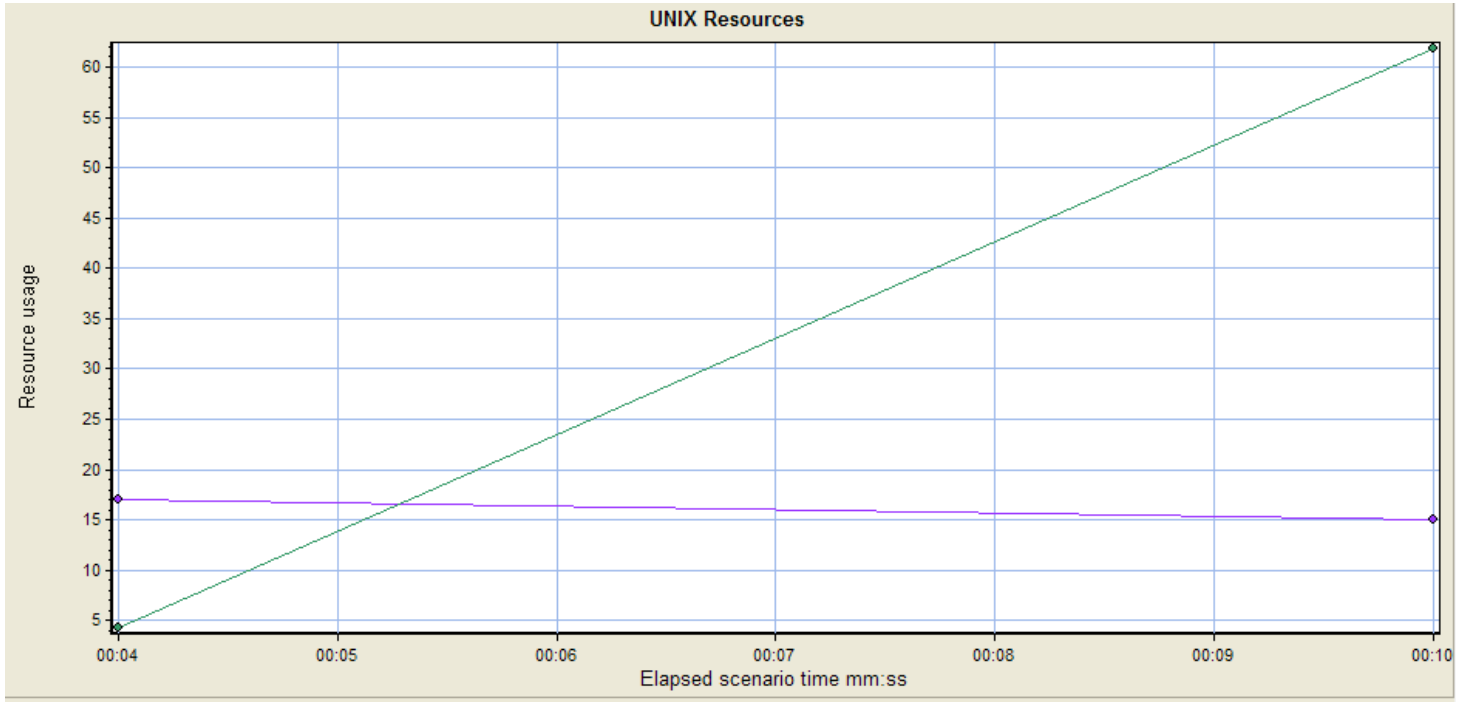
(5)RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 229.722 | 550.4 | 256.2 | 219.706 |

(6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| | 1 | CPU Utilization (Unix Kernel Statistics):172.31.... | 14.991 | 16.016 | 17.04 | 1.025 |
| | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200... | 42.667 | 330.667 | 618.667 | 288 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 200 | 7.933 | 10.623 | 13.395 | 26,178,012 | 0 | 229.722 | 550.4 | 0 | 11.111 | 122 | 0 | 229.722 | 550.4 | 14.991，16.061，17.04 | 42.667，330.667，618.667 |

### 5.3.2.1 并发 220 虚拟用户

# (1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 220 |
| Total Throughput (bytes): | | 40,162,159 |
| Average Throughput (bytes/second): | | 2,868,726 |
| Total Hits: | | 5,369 |
| Average Hits per Second: | | 383.5 |
| Total Errors: | | 76 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

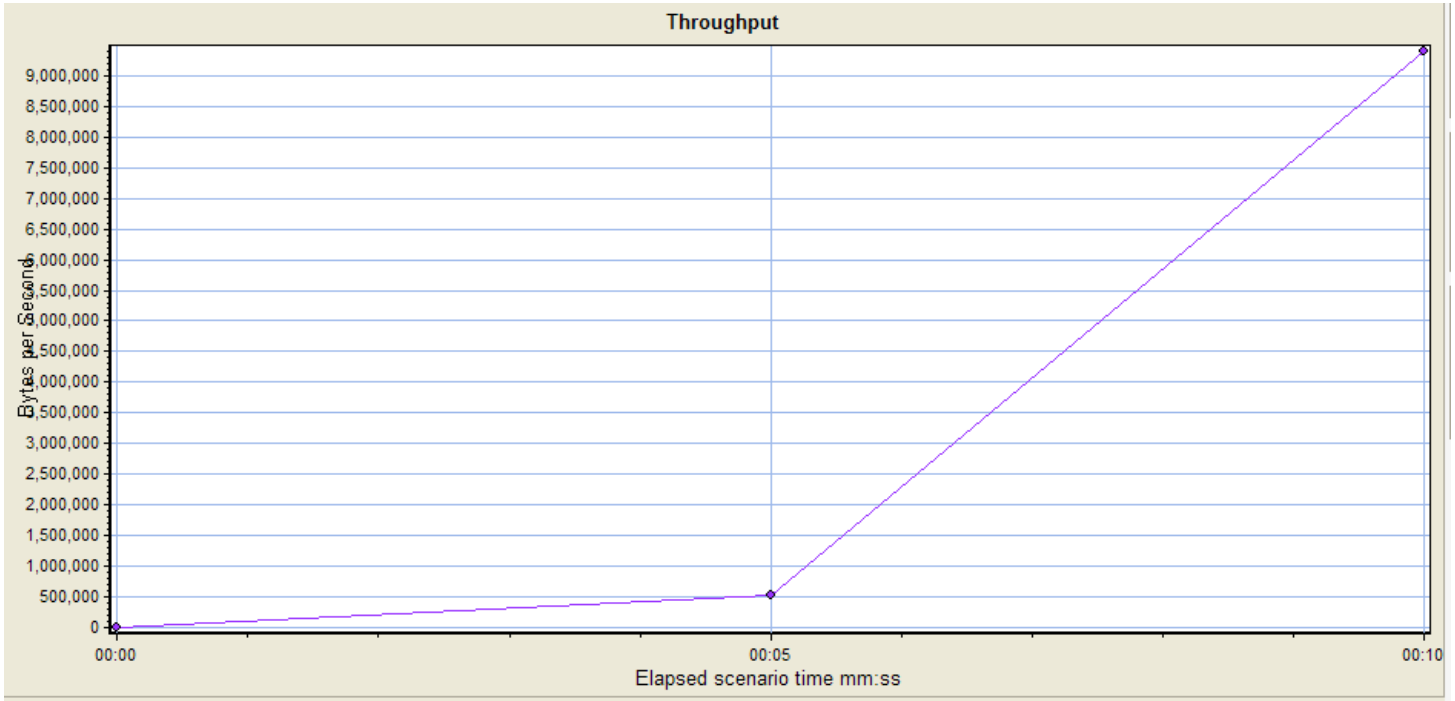
| Measurement Name | Time Ranges | | |
|---|---|---|---|
| Application Under Test Errors | 0 | 15 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 |

## Transaction Summary

Transactions: Total Passed: 628 Total Failed: 76 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 3.733 | 5.673 | 7.331 | 0.89 | 6.981 | 188 | 76 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 220 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.006 | 0.001 | 0.006 | 220 | 0 | 0 |

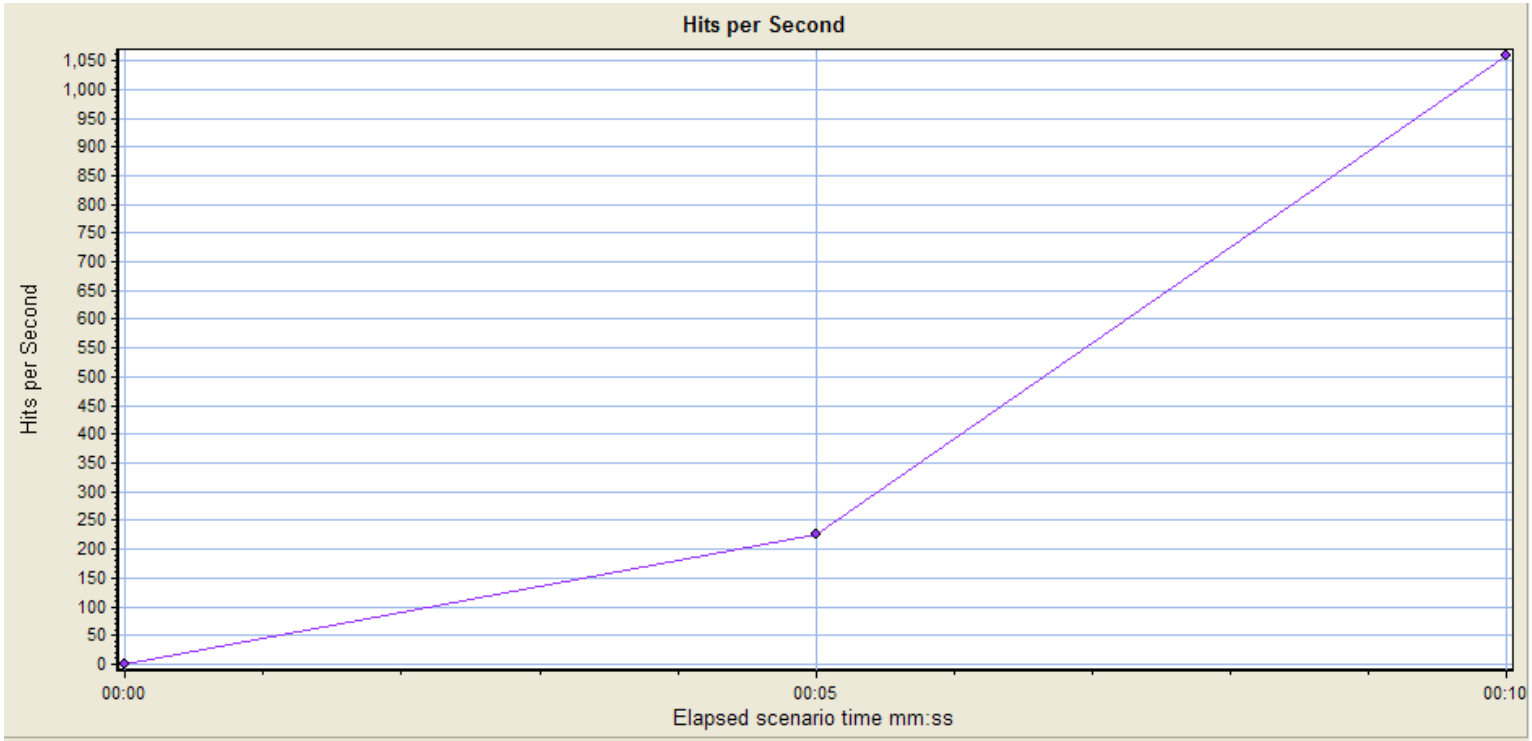
(2)吞吐量



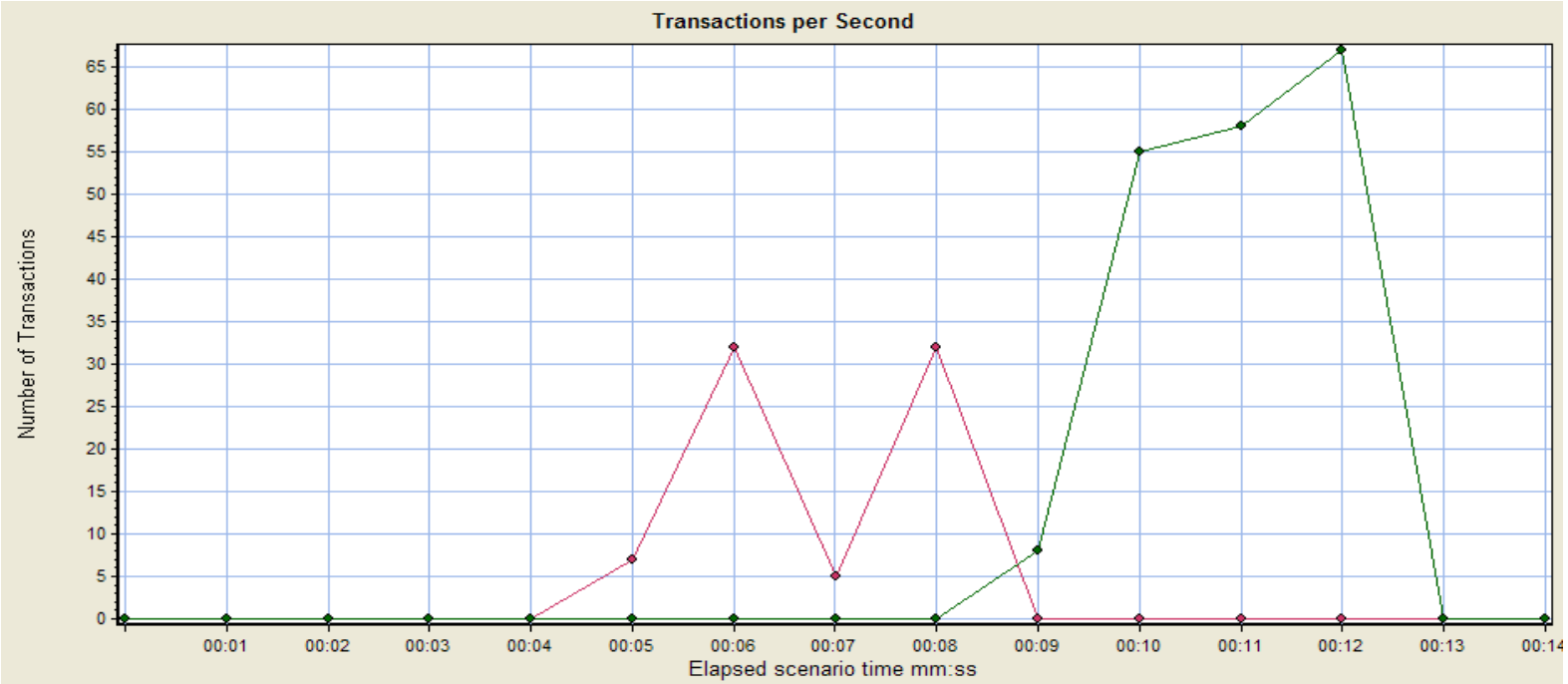

Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | Throughput | 0 | 2868725.643 | 9396525.5 | 515211.4 | 4313259.587 |

(3)点击率


Hits per Second
Hits per Second
1,050
1,000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
00:00
00:05
00:10
Elapsed scenario time mm:ss
Legend
Color
Scale
Measurement
Graph Minimum
Average
Graph Maximum
Graph Median
Graph Std. Deviation
1
Hits
0
383.5
1058.75
226.8
455.159

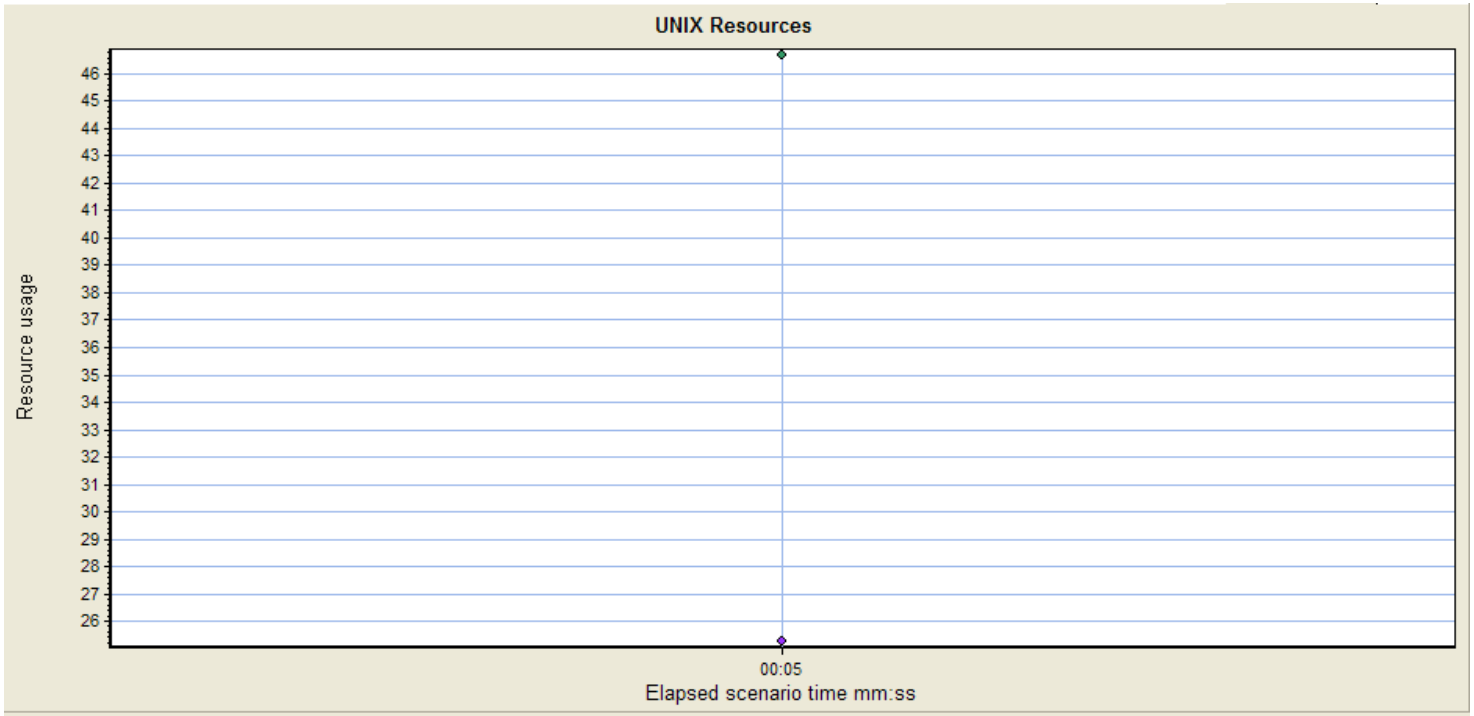
## (4)TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | Action_Transaction:Fail | 0 | 5.429 | 32 | 0 | 10.761 |
| | 1 | Action_Transaction:Pass | 0 | 13.429 | 67 | 0 | 23.925 |

## (5)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 46.667 | 46.667 | 46.667 | 0 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 25.277 | 25.277 | 25.277 | 0 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 200 | 7.933 | 10.623 | 13.395 | 26,178,012 | 0 | 229.722 | 550.4 | 0 | 11.111 | 122 | 0 | 229.722 | 550.4 | 14.991，16.061，17.04 | 42.667，330.667，618.667 |
| 220 | 3.733 | 6.981 | 7.331 | 40,162,159 | 0 | 383.5 | 1058.75 | 0 | 13.429 | 67 | 0 | 378.071 | 1058.75 | 25.277 | 46.667 |

## 小结

在运行 220 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：

2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resource temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 25.277%，Paging Rate 最高为 46.667＊0.1=4.667，吞吐量最大为：40,162,159Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，导航页该单台所能承受的并发最好情况为 200.

### 5.3.3 影片库

#### 5.3.3.1 并发 180 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 180 |
| Total Throughput (bytes): | | 39,985,615 |
| Average Throughput (bytes/second): | | 3,332,135 |
| Total Hits: | | 6,697 |
| Average Hits per Second: | | 558.083 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

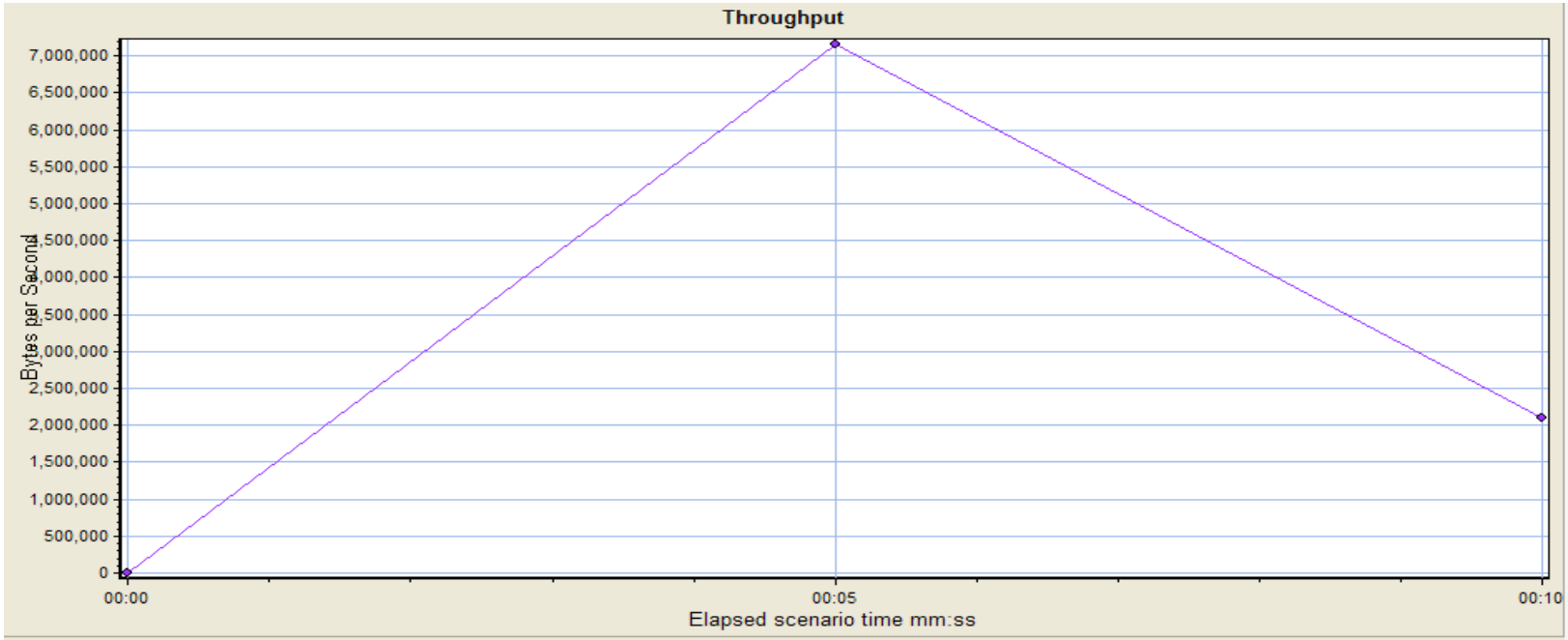
| Measurement Name | Time Ranges | | |
|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 |

## Transaction Summary

Transactions: Total Passed: 541 Total Failed: 0 Total Stopped: 0 Average Response Time

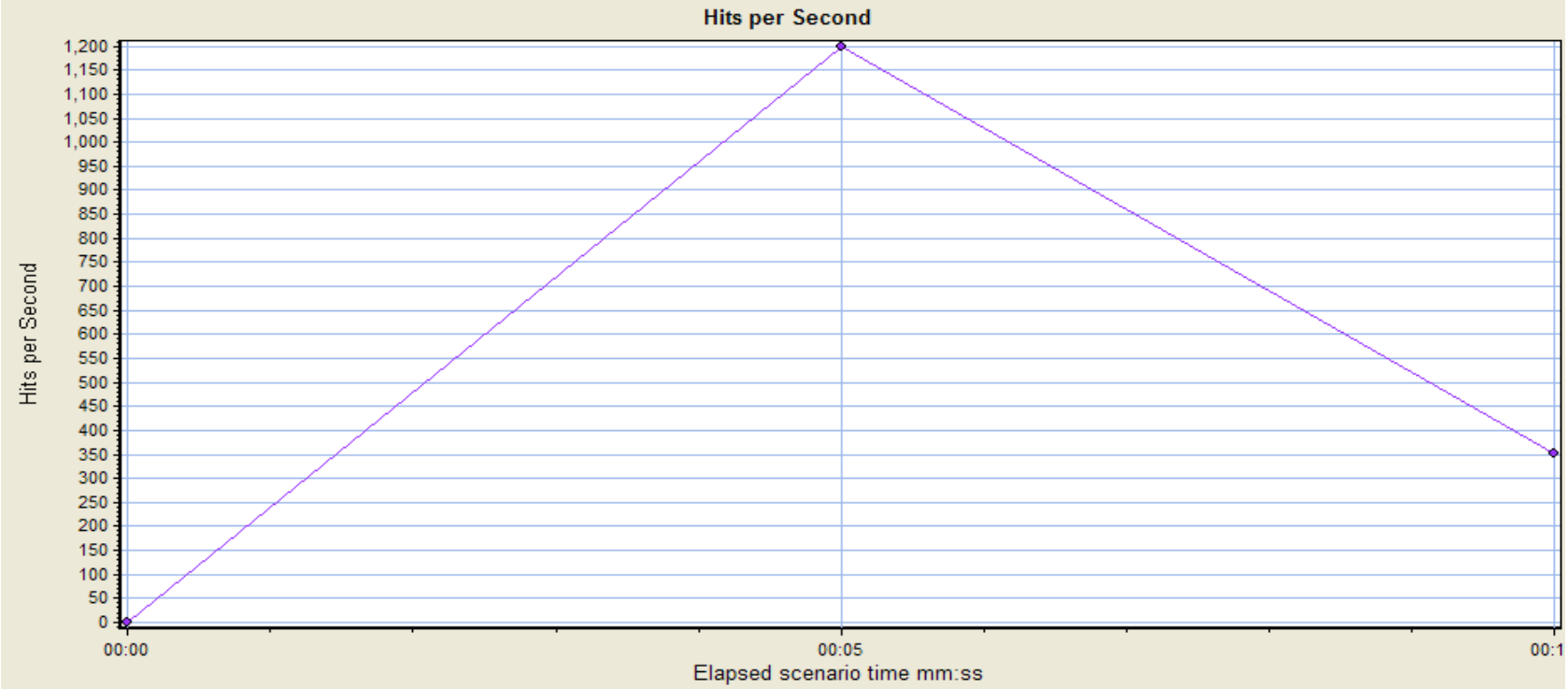
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 1.217 | 3.778 | 6.94 | 1.08 | 5.233 | 181 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 180 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 180 | 0 | 0 |

(2)吞吐量



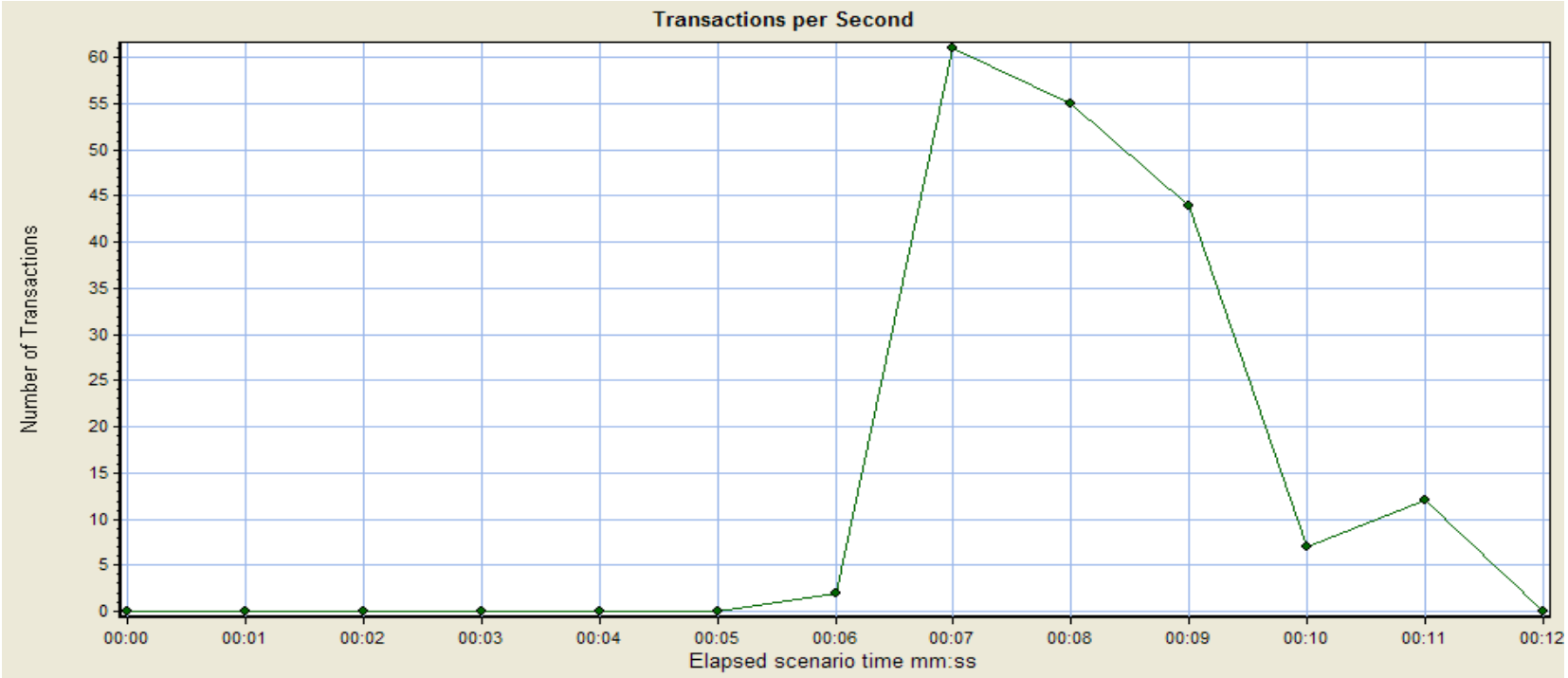

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 3332134.583 | 7157646 | 2098692.5 | 3004245.459 |

（3）点击率




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 558.083 | 1198.8 | 351.5 | 503.167 |

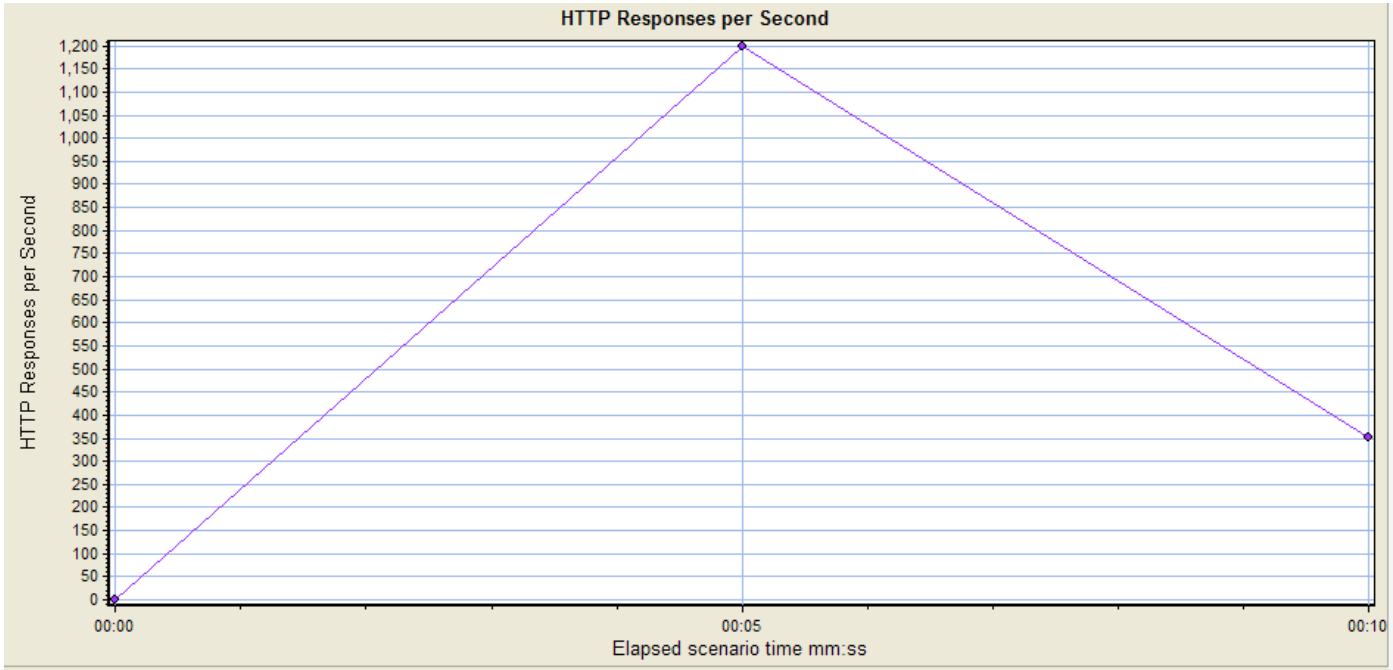
（4）TPS




Legend

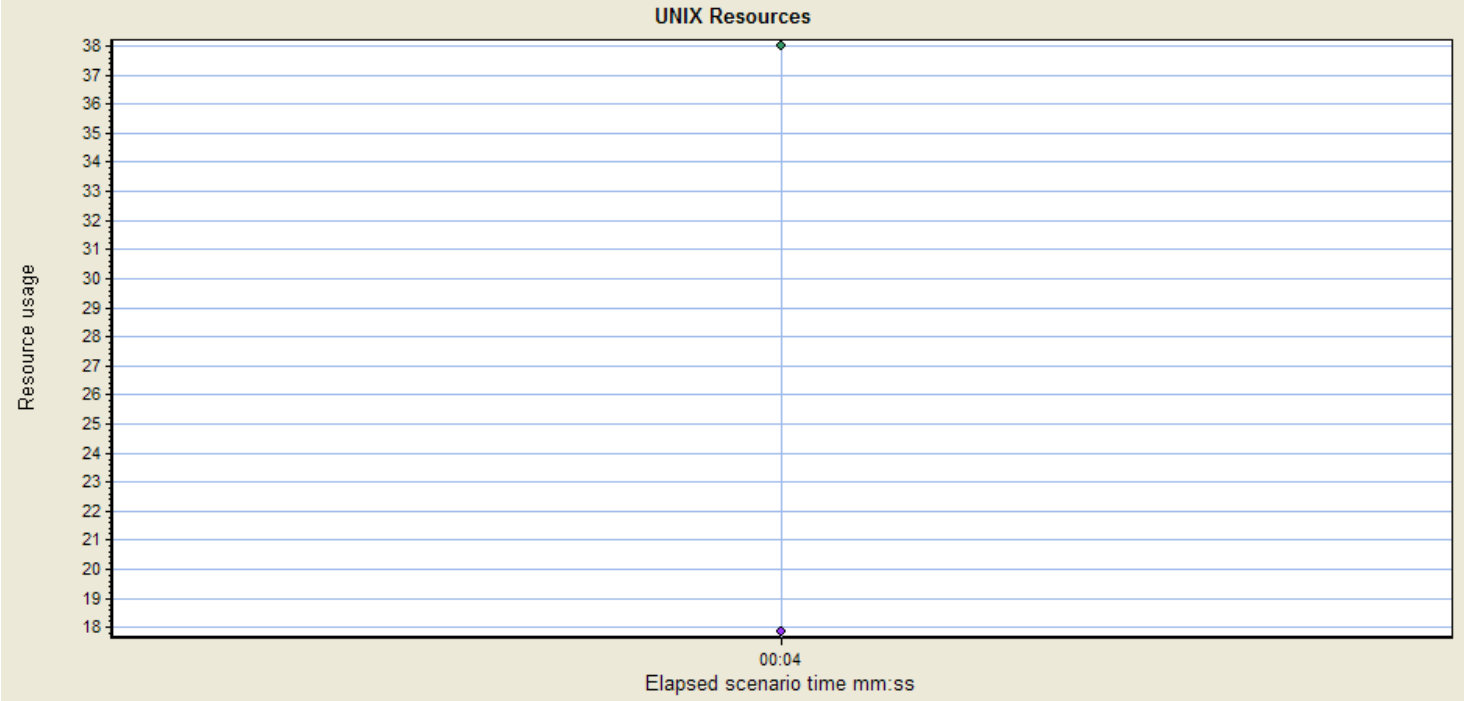
| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 15.083 | 61 | 0 | 22.117 |

## (5)RPS(Request Per Second)




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 558.083 | 1198.8 | 351.5 | 503.167 |

## (6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 38 | 38 | 38 | 0 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 17.856 | 17.856 | 17.856 | 0 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 180 | 1.217 | 5.233 | 6.94 | 39,985,615 | 0 | 558.083 | 1198.8 | 0 | 15.083 | 61 | 0 | 558.083 | 1198.8 | 17.856 | 38 |

### 5.3.3.1 并发 200 虚拟用户

(1)整体概述

## Statistics Summary

| | |
|---|---|
| Maximum Running Vusers: | 200 |
| Total Throughput (bytes): | 44,233,499 |
| Average Throughput (bytes/second): | 2,601,971 |
| Total Hits: | 7,668 |
| Average Hits per Second: | 451.059 |
| Total Errors: | 47 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

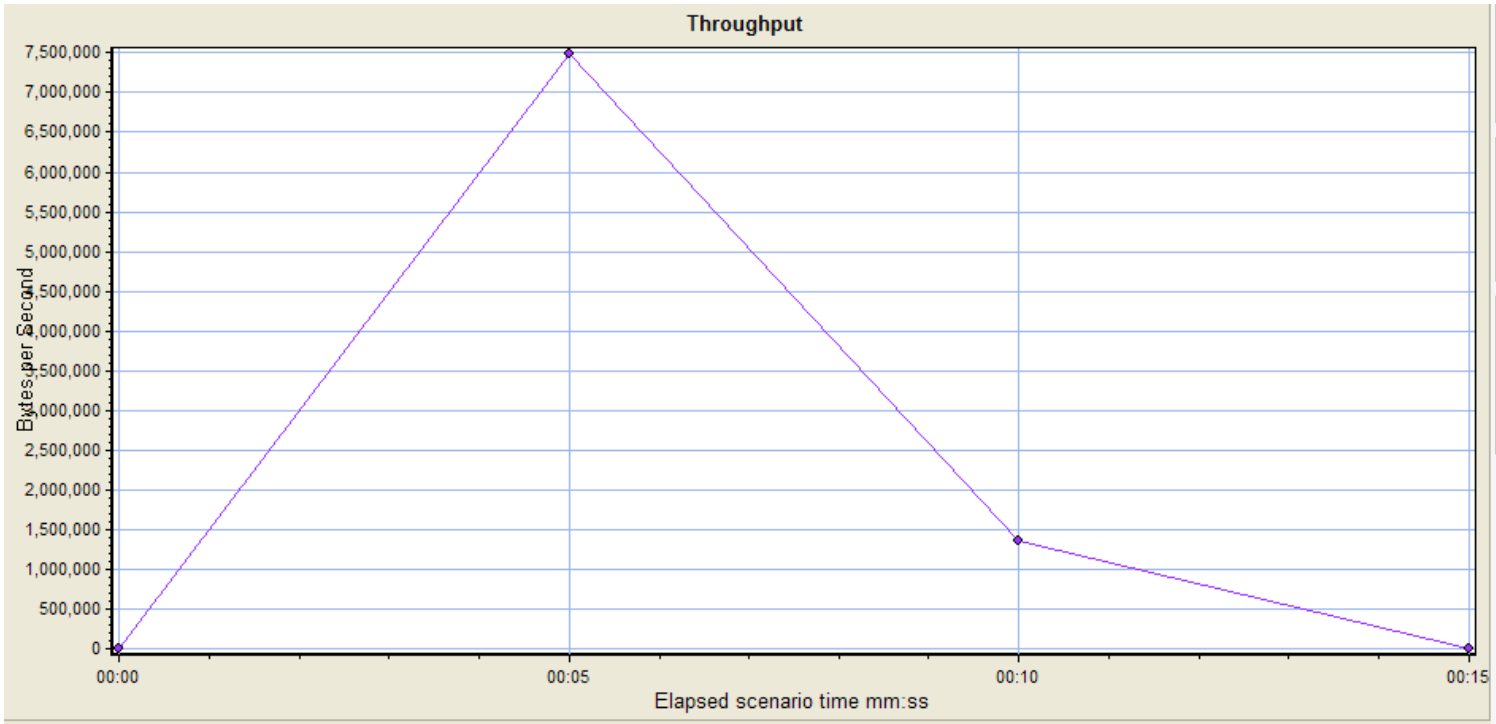
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 9.4 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 592 Total Failed: 47 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | - | 0.32 | 3.858 | 10.769 | 1.482 | 4.941 | 192 | 47 | 0 |
| vuser_end_Transaction | - | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 0 |
| vuser_init_Transaction | - | 0 | 0 | 0.002 | 0 | 0.002 | 200 | 0 | 0 |

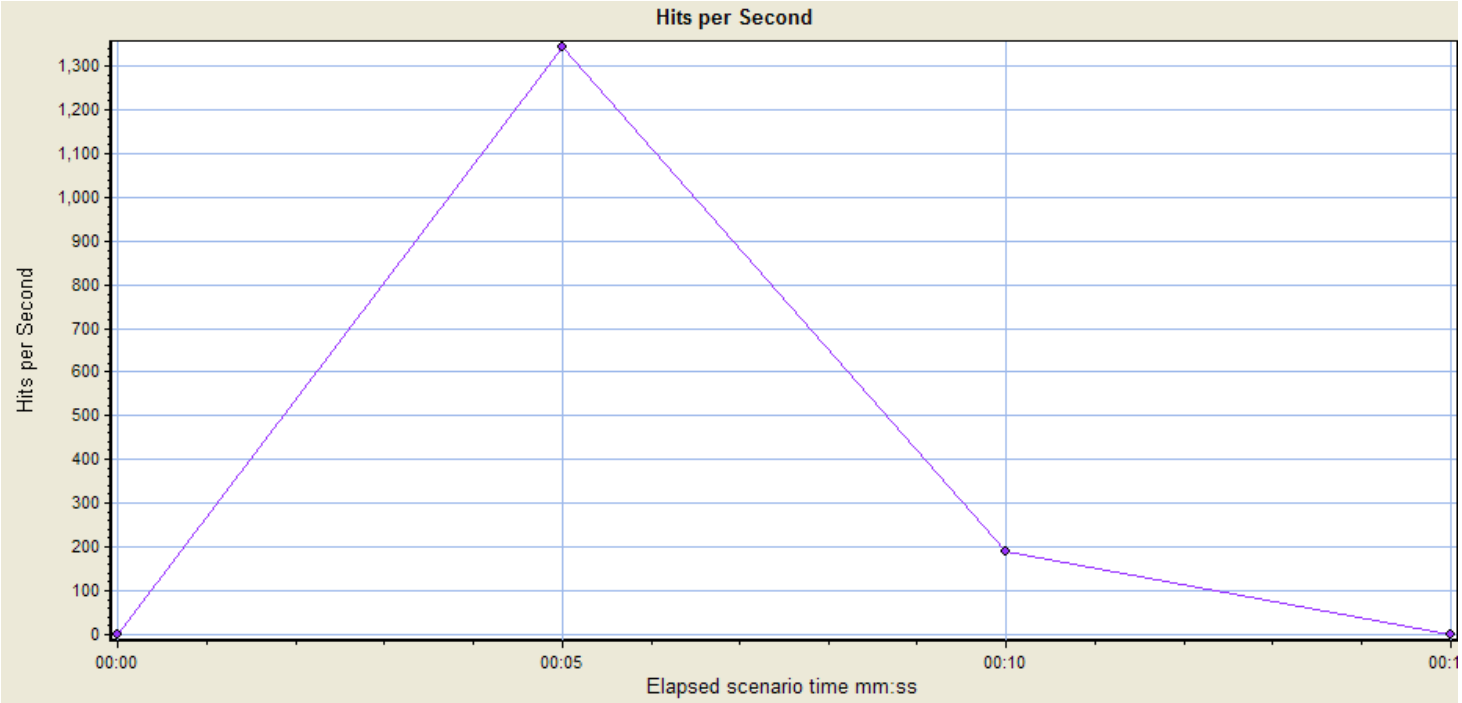
(2)吞吐量




Legend

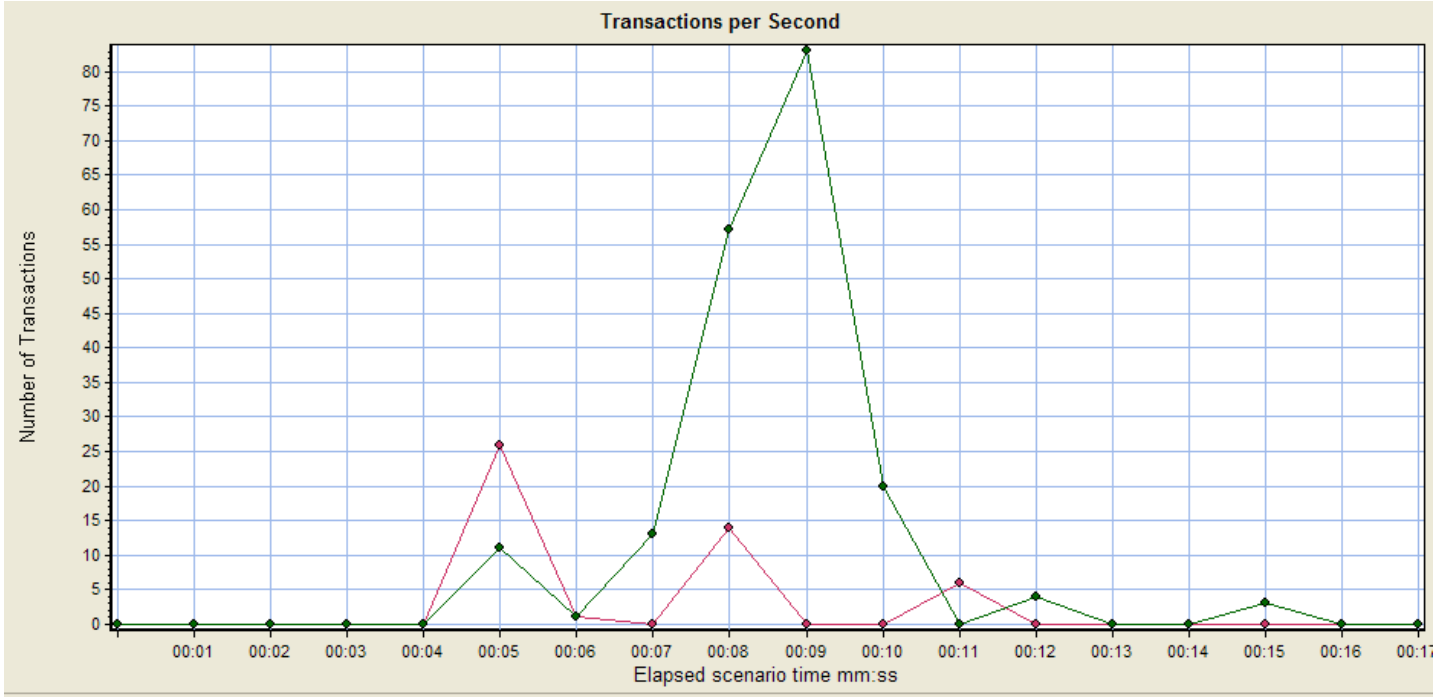
| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 2601970.529 | 7488038.8 | 1357310.4 | 3095886.035 |

（3）点击率




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 451.059 | 1342.8 | 190.8 | 559.36 |

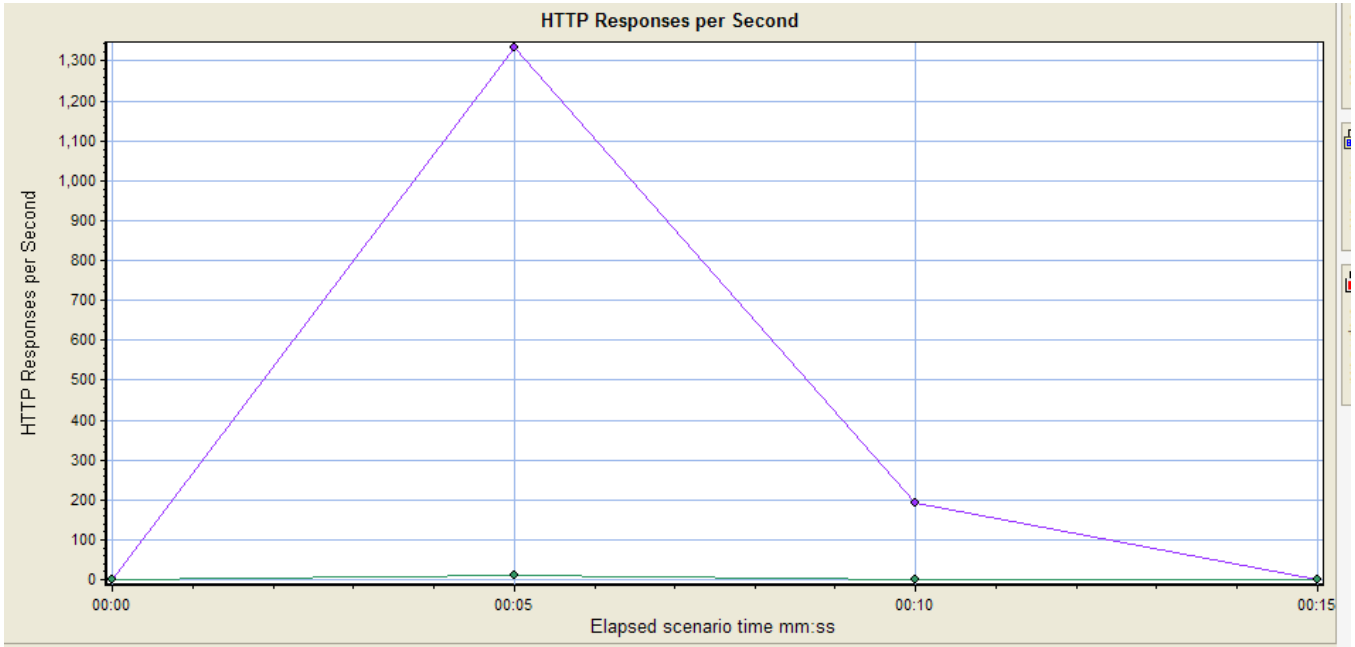
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Fail | 0 | 2.765 | 26 | 0 | 6.609 |
| ☑ | 1 | Action_Transaction:Pass | 0 | 11.294 | 83 | 0 | 22.118 |

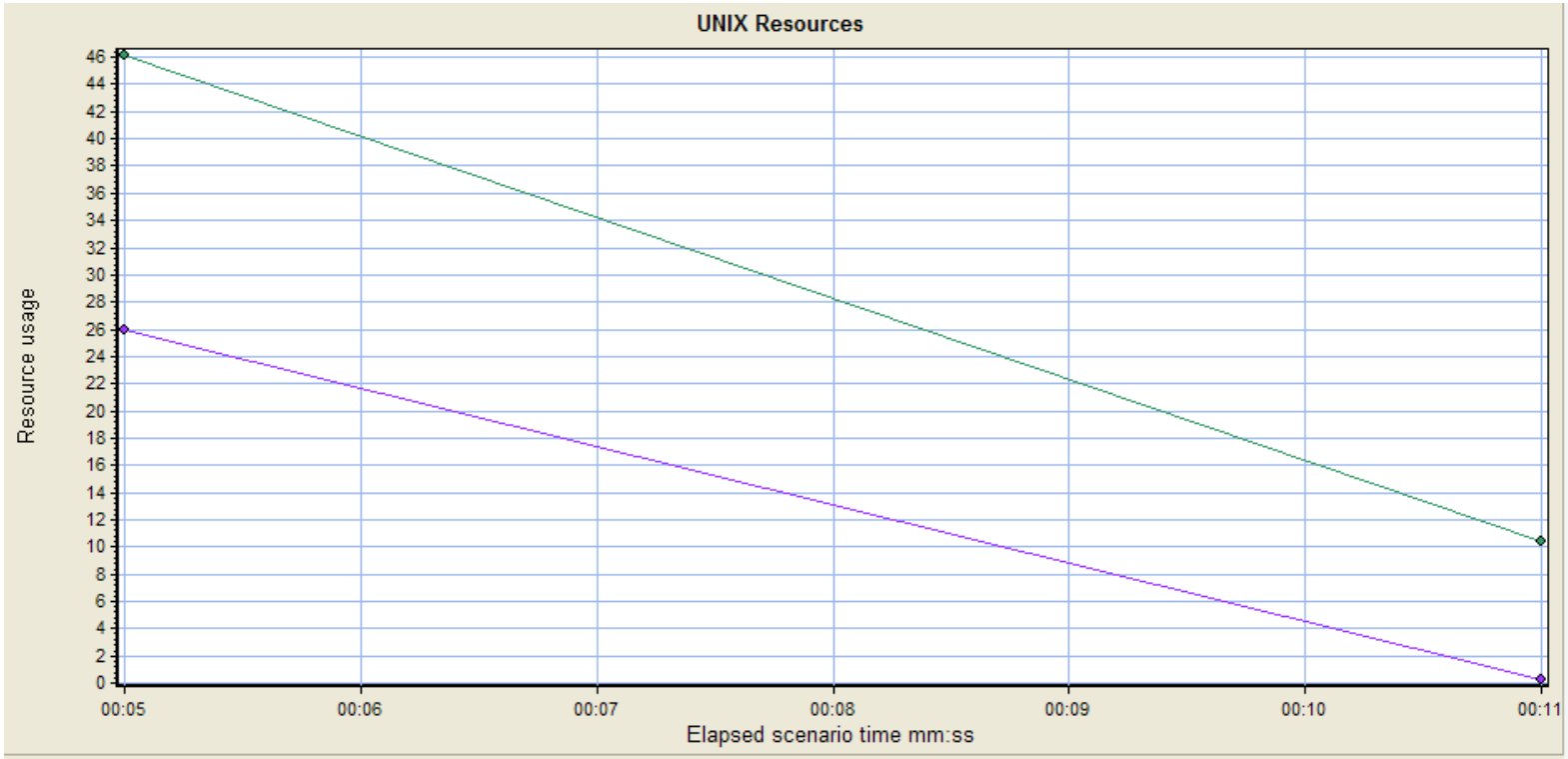
## (5)RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | HTTP_200 | 0 | 448.294 | 1333.4 | 190.8 | 555.33 |
| | 1 | HTTP_404 | 0 | 2.765 | 9.4 | 0 | 4.07 |

## (6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 104 | 282.667 | 461.333 | 178.666 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 0.25 | 13.107 | 25.963 | 12.856 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 180 | 1.217 | 5.233 | 6.94 | 39,985,615 | 0 | 558.083 | 1198.8 | 0 | 15.083 | 61 | 0 | 558.083 | 1198.8 | 17.856 | 38 |
| 200 | 0.32 | 4.941 | 10.769 | 44,233,499 | 0 | 451.059 | 1342.8 | 0 | 11.294 | 83 | 0 | 448.294 | 1333.4 | 0.25,13.107,25.963 | 104,282.667,461.333 |

## 小结

在运行 200 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resour

ce temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request : "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 25.963%，Paging Rate 最高为 461.333＊0.1=46.1,吞吐量最大为：44,233,499Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，影片库页该单台所能承受的并发最好情况为 180.

### 5.3.4 频道列表

#### 5.3.4.1 并发 160 虚拟用户

(1)整体概述

## Statistics Summary

| | |
|---|---|
| Maximum Running Vusers: | 160 |
| Total Throughput (bytes): | 18,756,864 |
| Average Throughput (bytes/second): | 1,875,686 |
| Total Hits: | 6,336 |
| Average Hits per Second: | 633.6 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

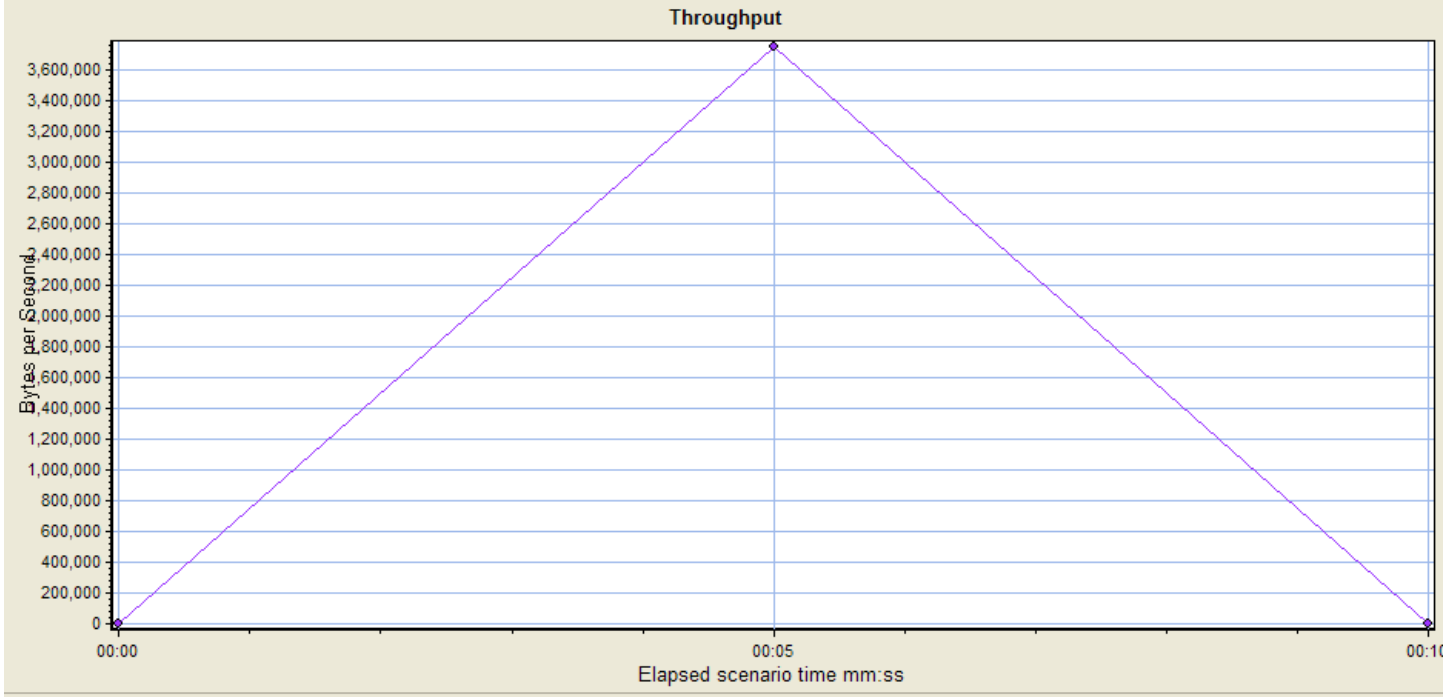
| Measurement Name | Time Ranges | | |
|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 |

## Transaction Summary

Transactions: Total Passed: 608 Total Failed: 0 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 0.222 | 1.483 | 4.024 | 0.966 | 3.055 | 288 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 160 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 160 | 0 | 0 |

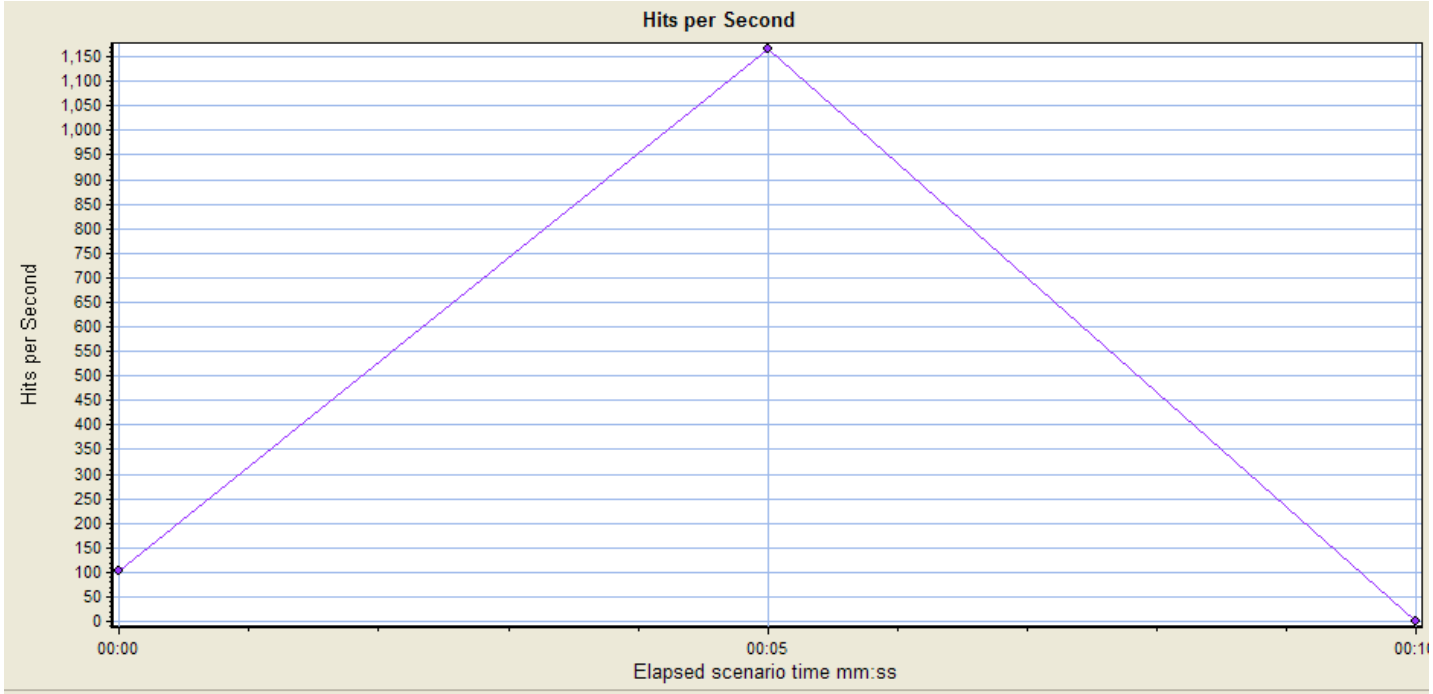
(2)吞吐量




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 1875686.4 | 3751372.8 | 0 | 1768414.097 |

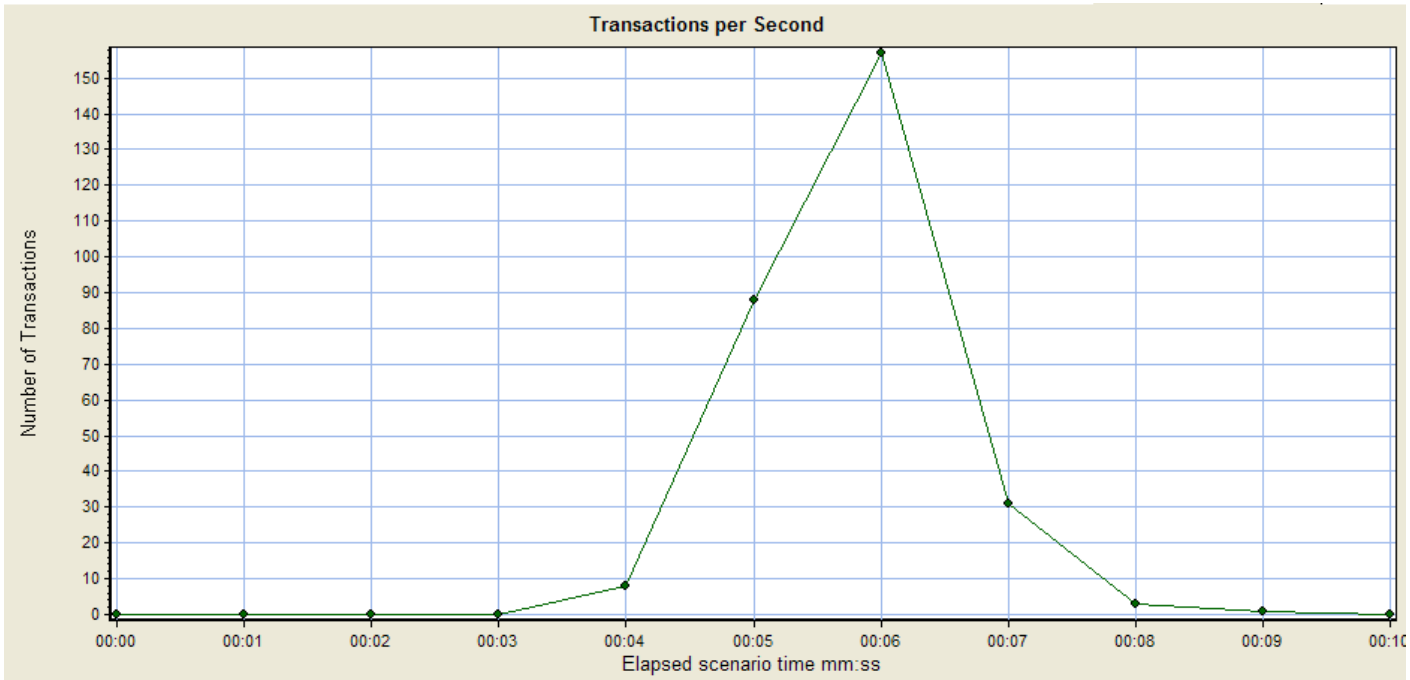
（3）点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 633.6 | 1166 | 101.2 | 527.425 |

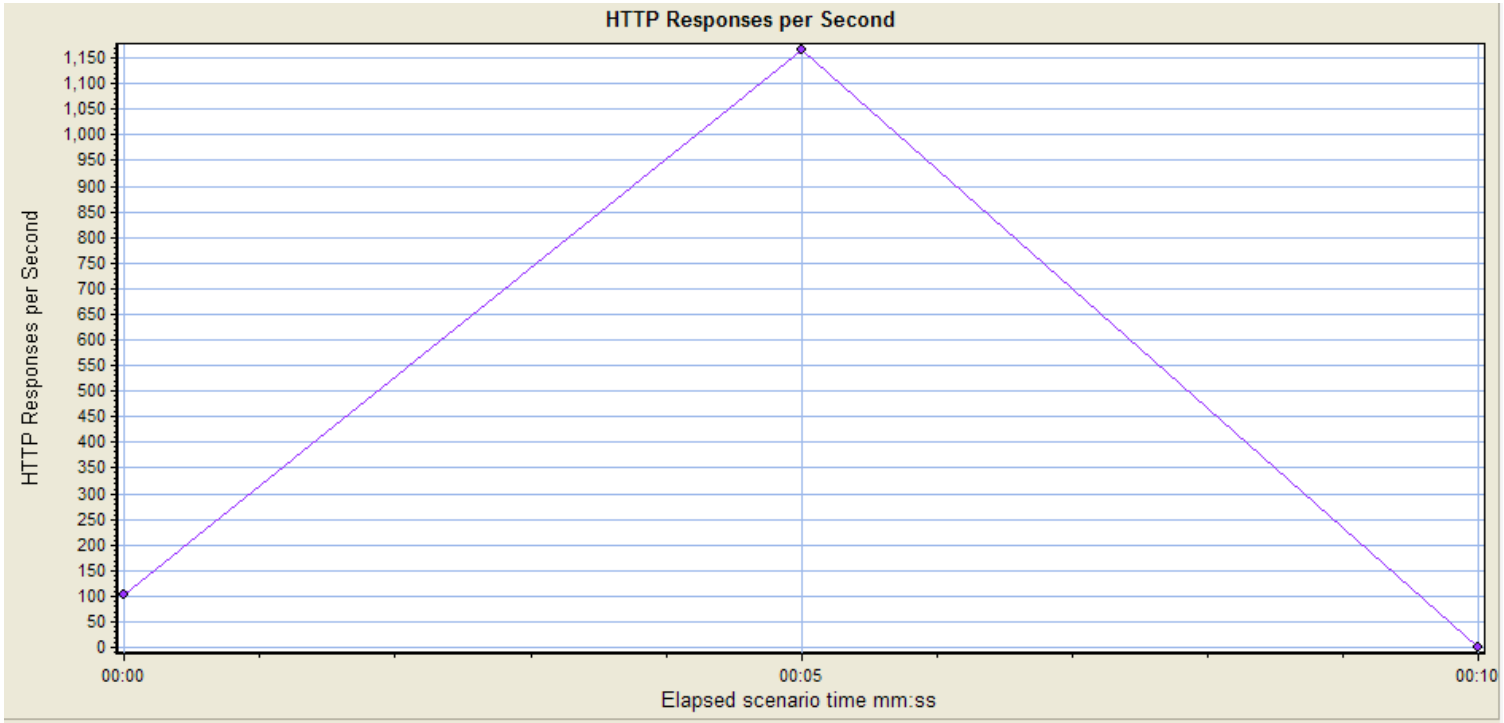
（4）TPS




Legend

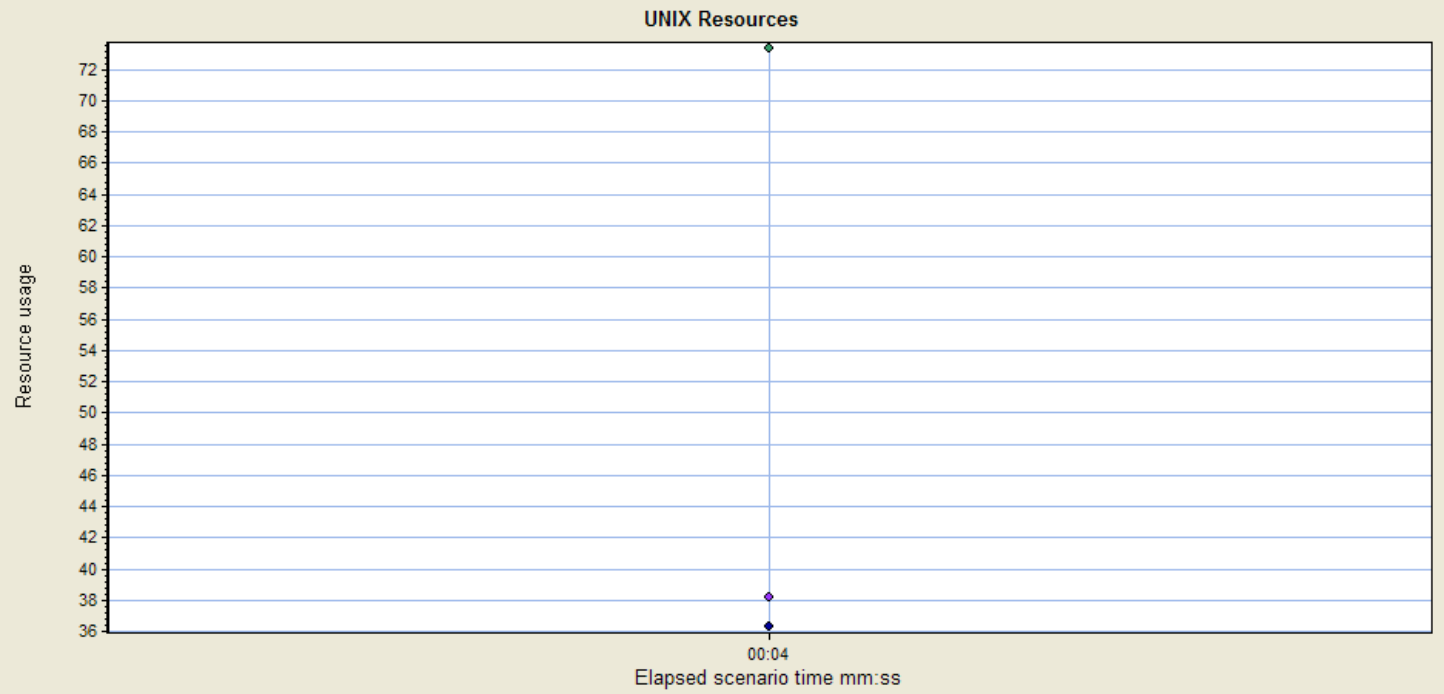
| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | Action_Transaction:Pass | 0 | 28.8 | 157 | 1 | 48.512 |

## (5)RPS(Request Per Second)




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 633.6 | 1166 | 101.2 | 527.425 |

## (6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 1 | User mode CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 36.315 | 36.315 | 36.315 | 0 |
| ☑ | 1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 73.333 | 73.333 | 73.333 | 0 |

(6)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate (min->aver->max) |
| 160 | 0.222 | 3.055 | 4.024 | 18,756,864 | 0 | 633.6 | 1166 | 0 | 28.8 | 157 | 0 | 633.6 | 1166 | 38.225 | 73.333 |

### 5.3.4.1 并发 180 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 180 |
| Total Throughput (bytes): | | 22,879,556 |
| Average Throughput (bytes/second): | | 2,287,956 |
| Total Hits: | | 7,799 |
| Average Hits per Second: | | 779.9 |
| Total Errors: | | 31 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

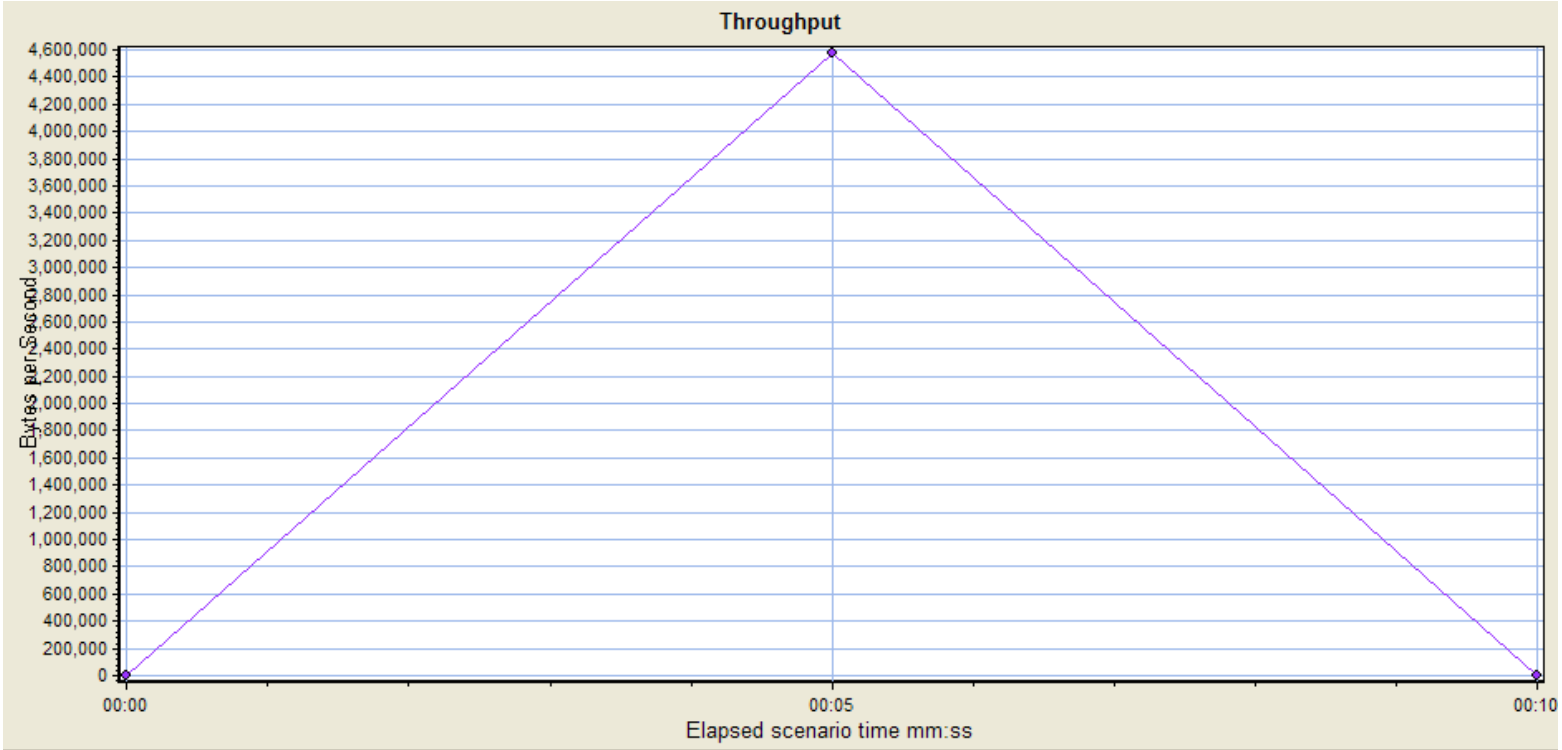
| Measurement Name | Time Ranges | | |
|---|---|---|---|
| Application Under Test Errors | 6.2 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 |

## Transaction Summary

Transactions: Total Passed: 699 Total Failed: 31 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 0.218 | 1.41 | 5.476 | 0.975 | 2.804 | 339 | 31 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 180 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 180 | 0 | 0 |

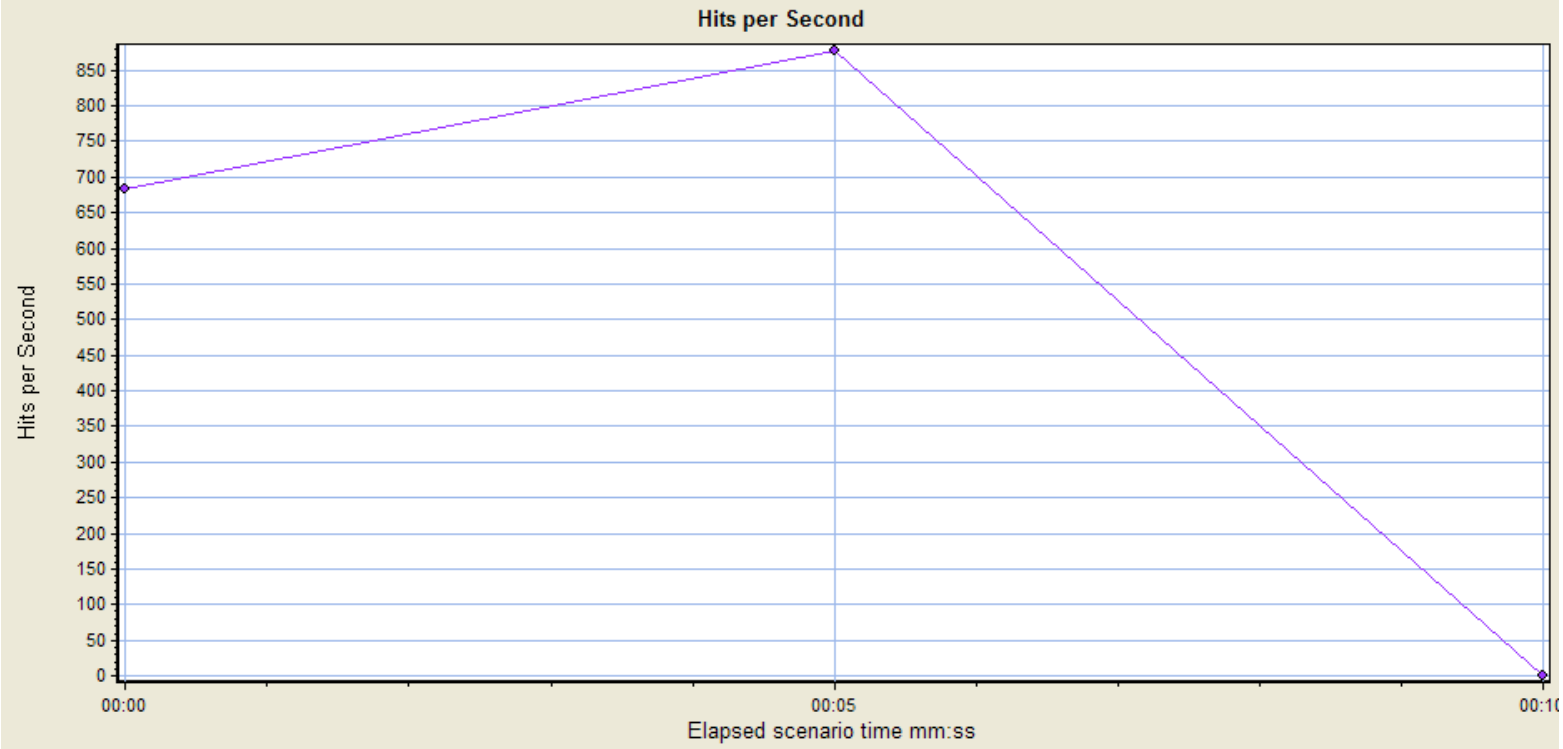
(2)吞吐量




Legend

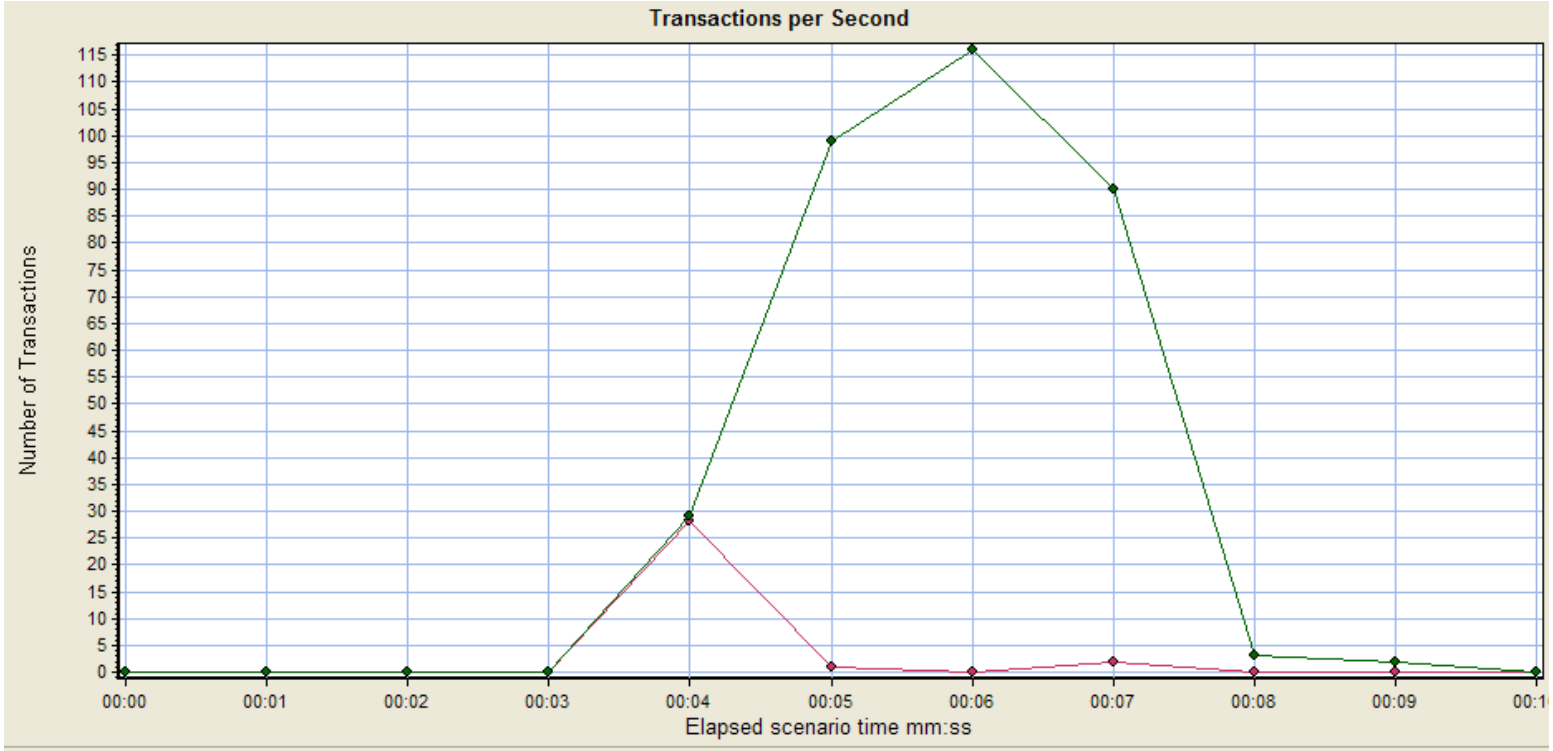
| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 2287955.6 | 4575911.2 | 0 | 2157105.226 |

（3）点击率




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 779.9 | 877.2 | 682.6 | 376.134 |

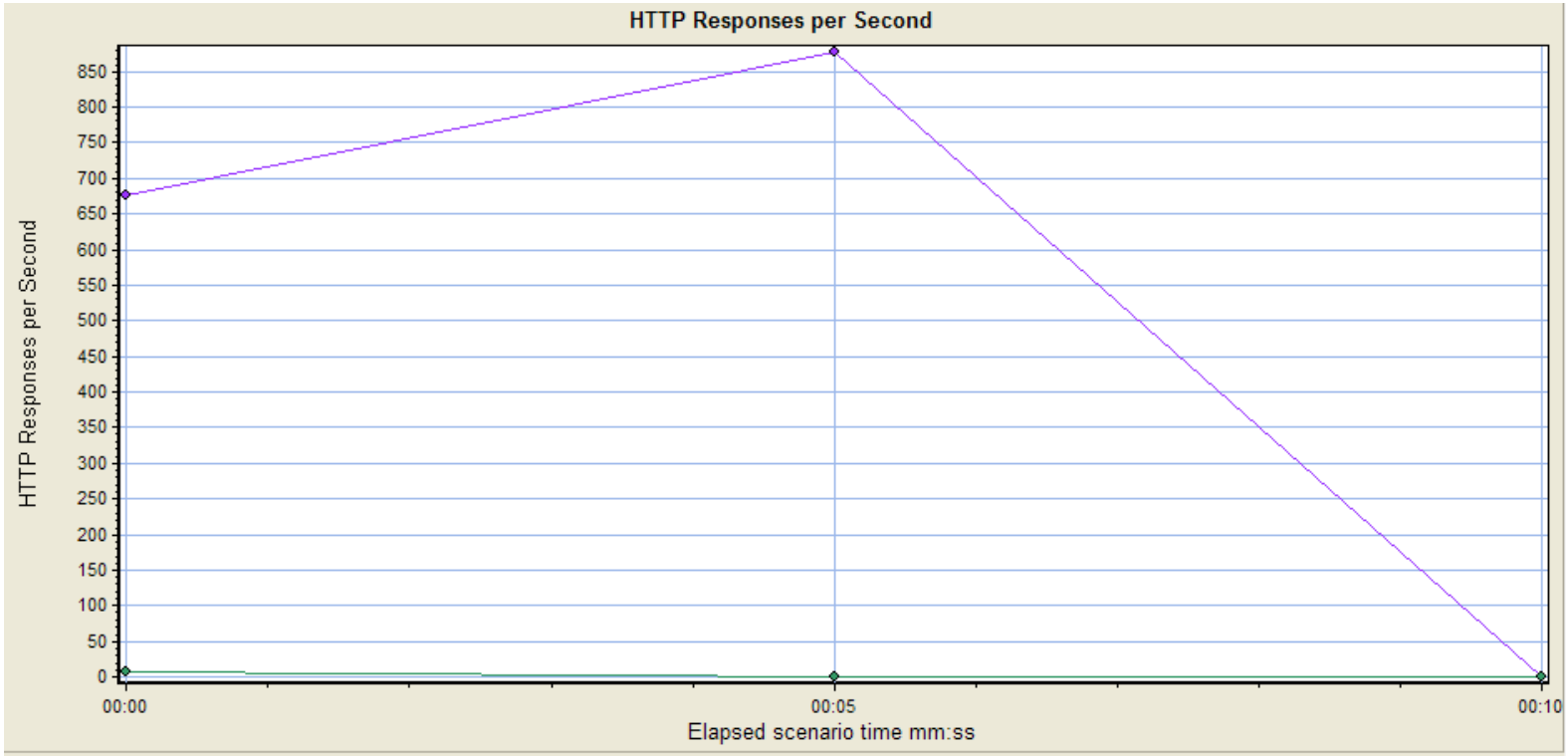
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | Action_Transaction:Fail | 0 | 3.1 | 28 | 0 | 7.987 |
| | 1 | Action_Transaction:Pass | 0 | 33.9 | 116 | 2 | 44.48 |

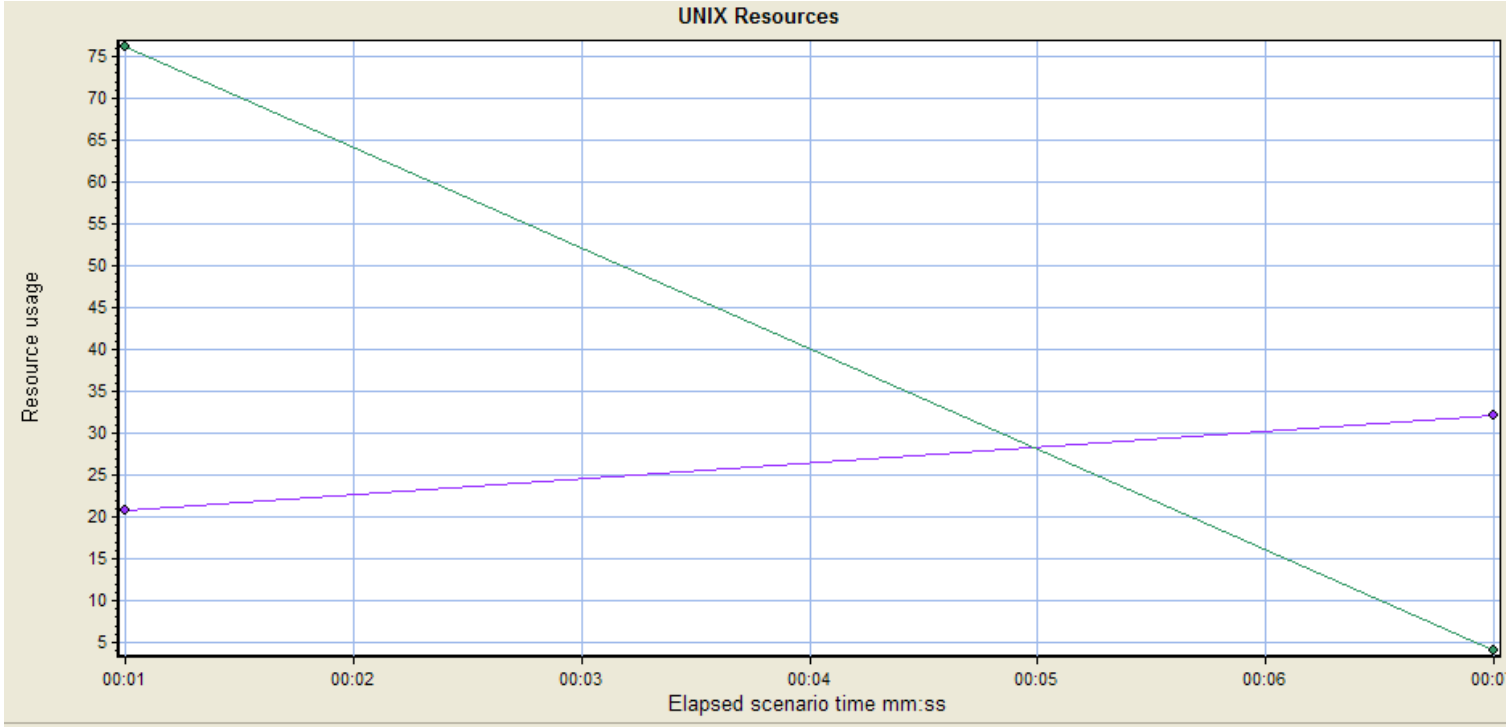
## (5)RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| | 1 | HTTP_200 | 0 | 776.8 | 877.2 | 676.4 | 375.251 |
| | 1 | HTTP_404 | 0 | 3.1 | 6.2 | 0 | 2.923 |

## (6)Unix 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 40.8 | 401.543 | 762.286 | 360.743 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 20.83 | 26.524 | 32.219 | 5.695 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 160 | 0.222 | 3.055 | 4.024 | 18,756,864 | 0 | 633.6 | 1166 | 0 | 28.8 | 157 | 0 | 633.6 | 1166 | 38.225 | 73.333 |
| 180 | 0.218 | 2.804 | 5.476 | 22,879,556 | 0 | 779.9 | 877.2 | 0 | 33.9 | 116 | 0 | 776.8 | 877.2 | 20.83,26.524,32.219 | 40.8,401.543,762.286 |

## 小结

在运行 180 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：

2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resource temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 32.219%，Paging Rate 最高为 762.286*0.1=76.3,吞吐量最大为：22,879,556Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，频道列表页该单台所能承受的并发最好情况为 160.

### 5.3.5 搜索

#### 5.3.5.1 并发 320 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 320 |
| Total Throughput (bytes): | | 57,927,582 |
| Average Throughput (bytes/second): | | 2,758,456 |
| Total Hits: | | 8,592 |
| Average Hits per Second: | | 409.143 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

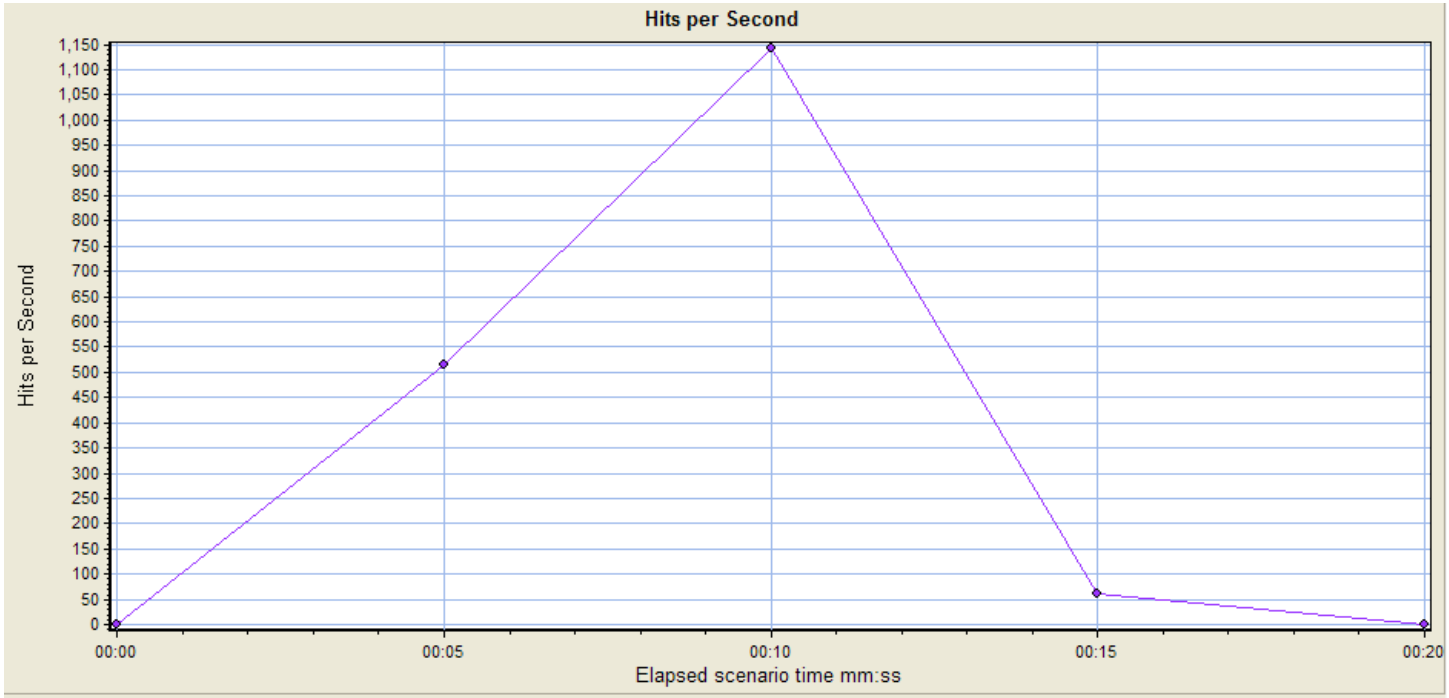
| Measurement Name | Time Ranges | | | | |
|---|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 | 00:00:20 |

## Transaction Summary

Transactions: Total Passed: 998 Total Failed: 0 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 0.595 | 4.899 | 13.159 | 2.392 | 7.732 | 358 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 320 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 320 | 0 | 0 |

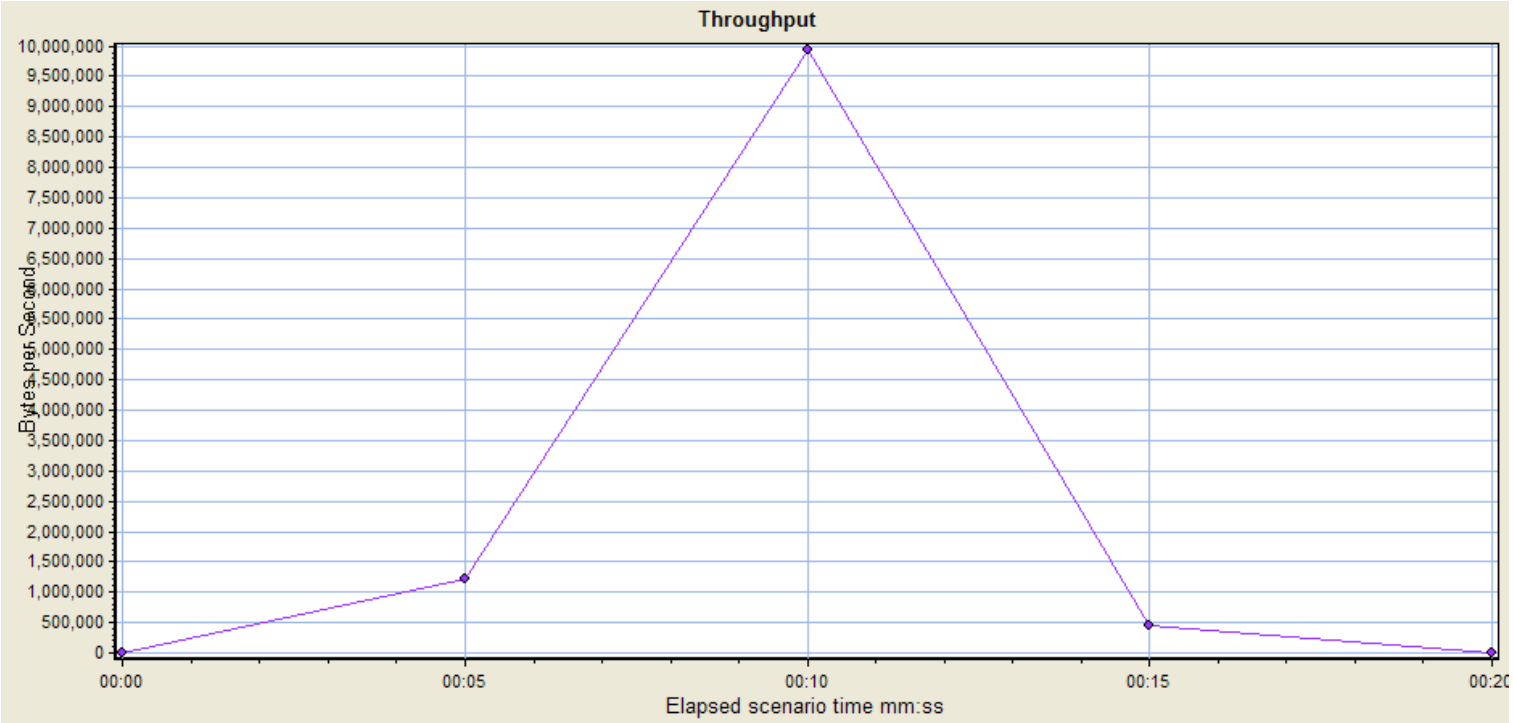
（2）点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 409.143 | 1142.4 | 62.4 | 443.21 |

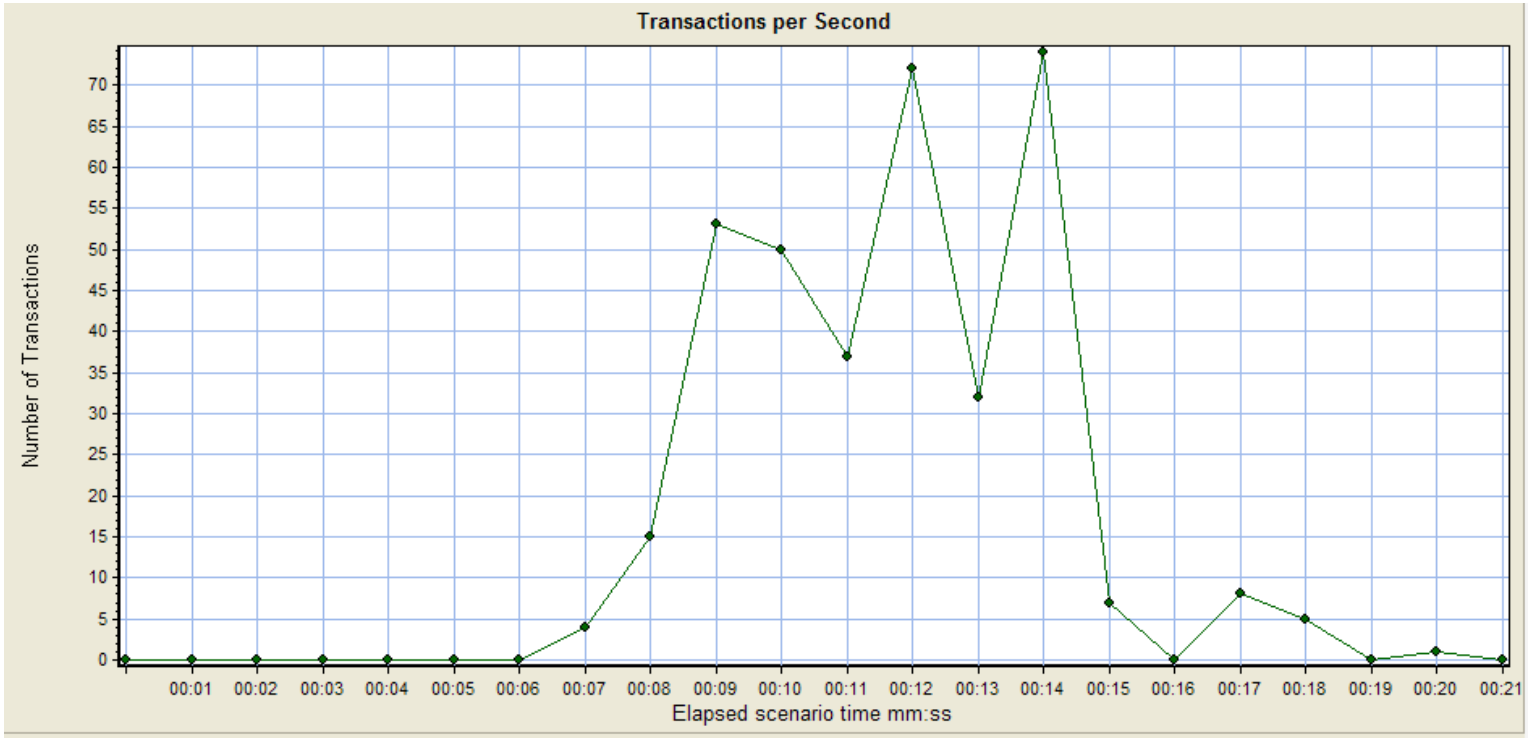
（3）吞吐量




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 2758456.286 | 9936510.8 | 442856.8 | 3835109.54 |

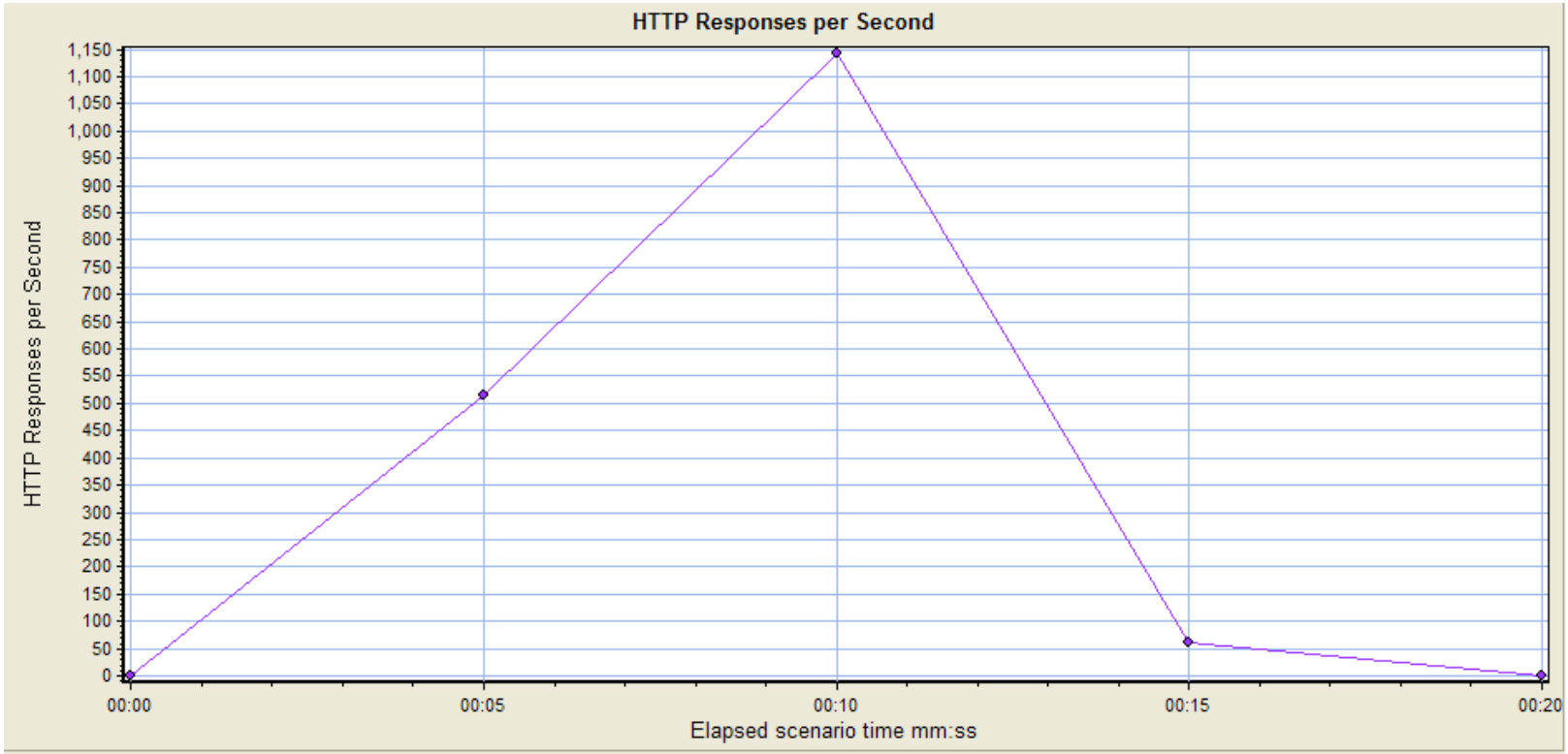
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 17.048 | 74 | 4 | 24.23 |

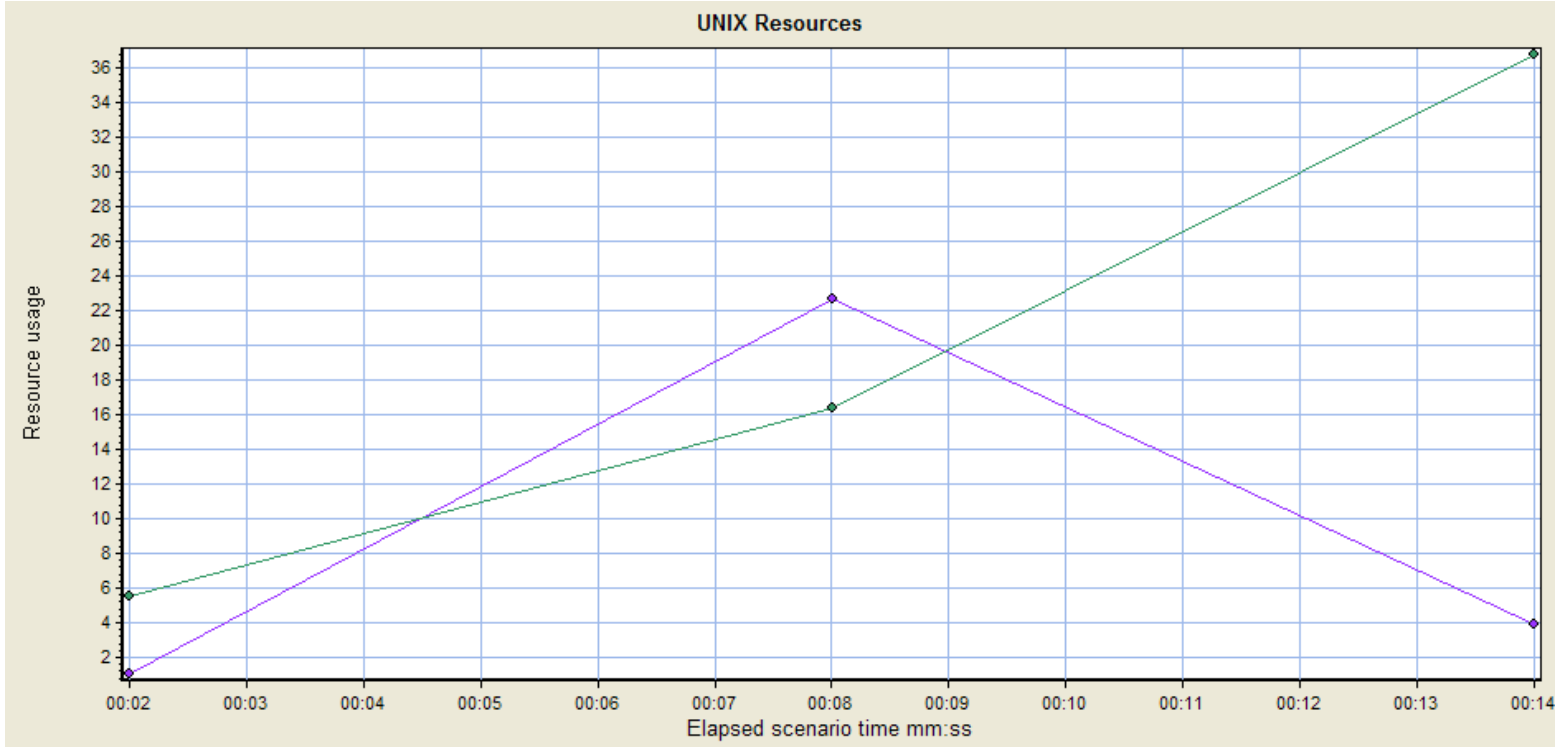
(5)RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 409.143 | 1142.4 | 62.4 | 443.21 |

## （6）UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 54.667 | 195.143 | 367.429 | 129.651 |
| | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 1.022 | 9.177 | 22.602 | 9.566 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 320 | 0.595 | 7.732 | 13.159 | 57,927,582 | 0 | 409.143 | 1142.4 | 0 | 17.048 | 74 | 0 | 409.143 | 1142.4 | 1.022,9.177,22.602 | 54.667,195.143,367.429 |

### 5.3.5.2 并发 340 虚拟用户

## (1) 整体概述

### Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 340 |
| Total Throughput (bytes): | | 64,573,422 |
| Average Throughput (bytes/second): | | 3,228,671 |
| Total Hits: | | 9,552 |
| Average Hits per Second: | | 477.6 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

### Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

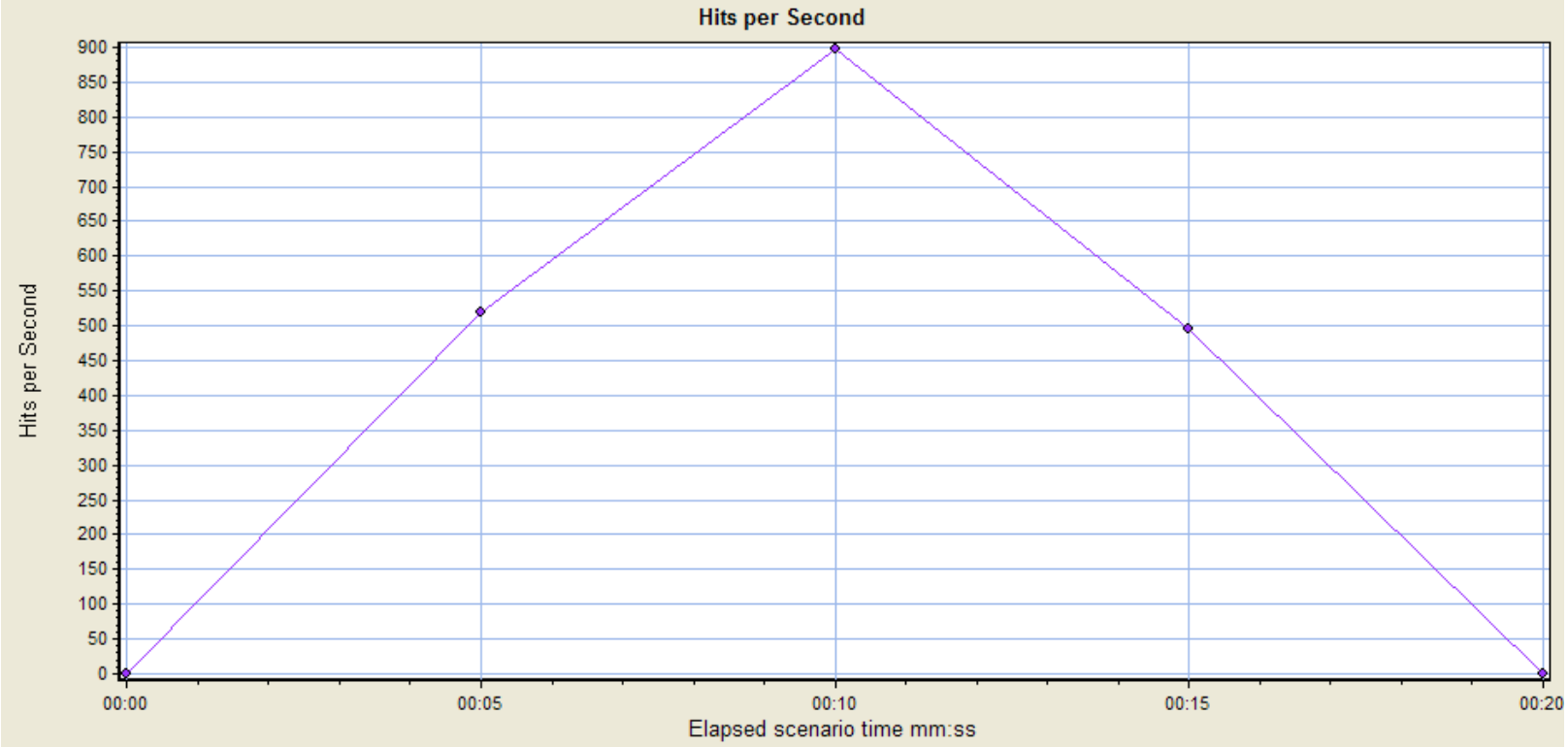
| Measurement Name | Time Ranges | | | | |
|---|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 | 00:00:20 |

### Transaction Summary

Transactions: Total Passed: 1,078 Total Failed: 0 Total Stopped: 0 Average Response Time

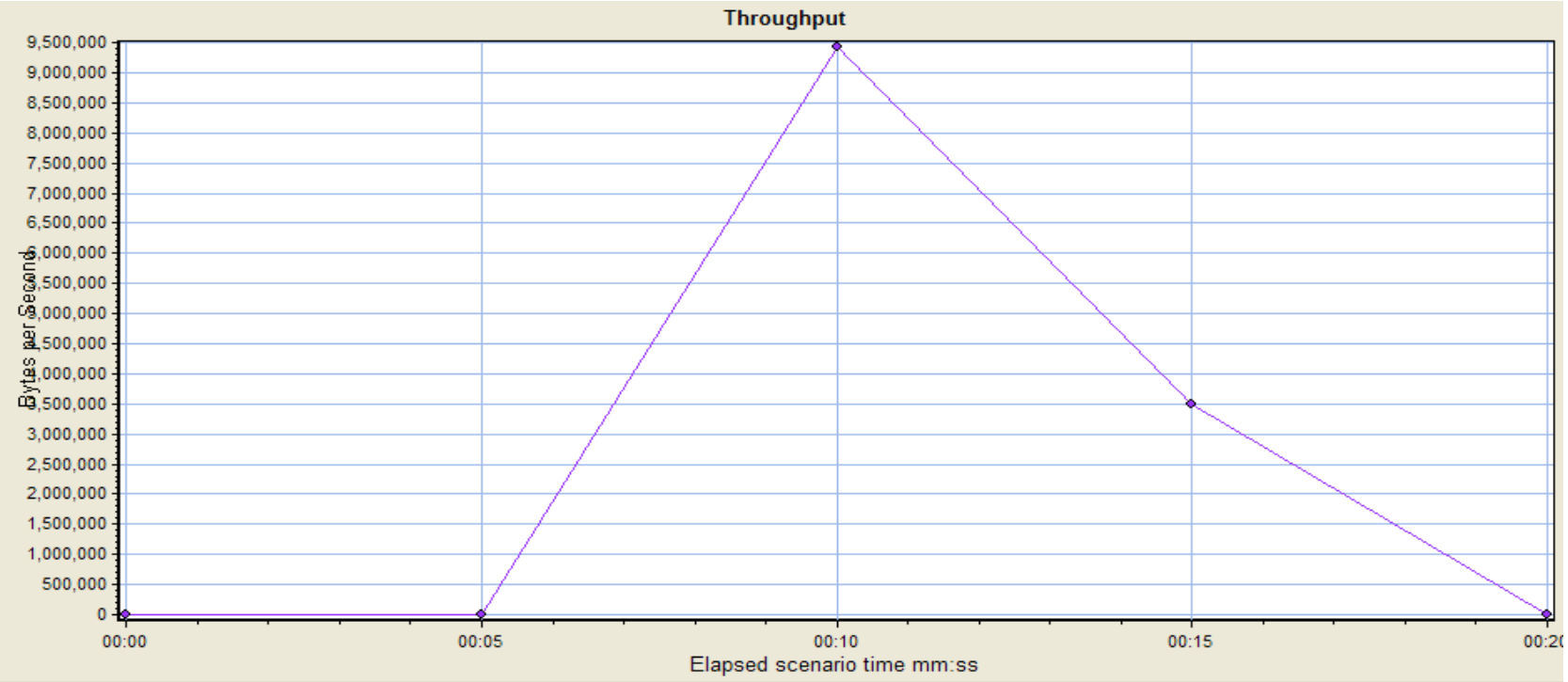
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 0.637 | 4.822 | 11.43 | 2.707 | 8.403 | 398 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 340 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.003 | 0 | 0.003 | 340 | 0 | 0 |

(2) 点击率




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 477.6 | 897.6 | 494.4 | 343.2 |

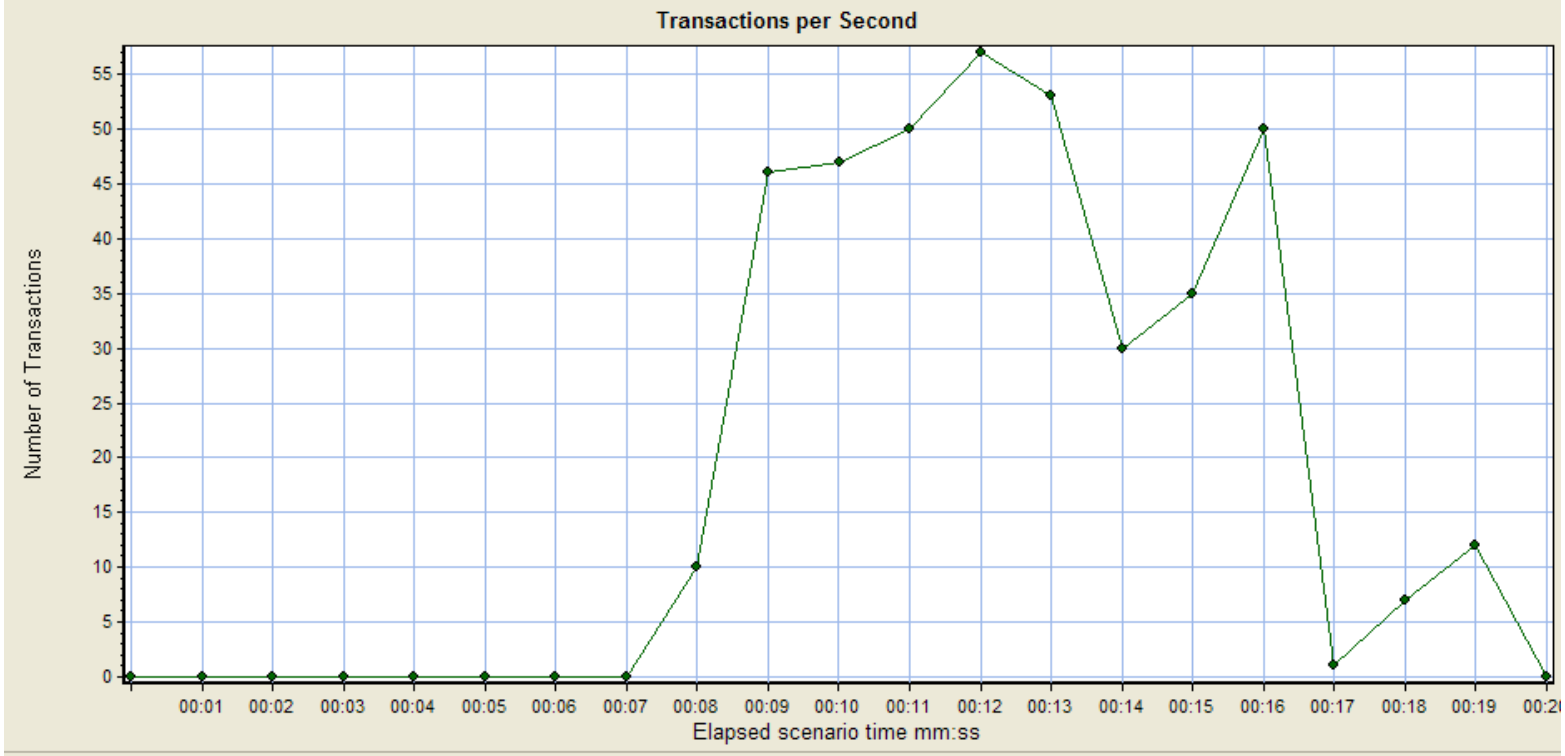
(3) 吞吐量




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 3228671.1 | 9428361 | 0 | 3679419.176 |

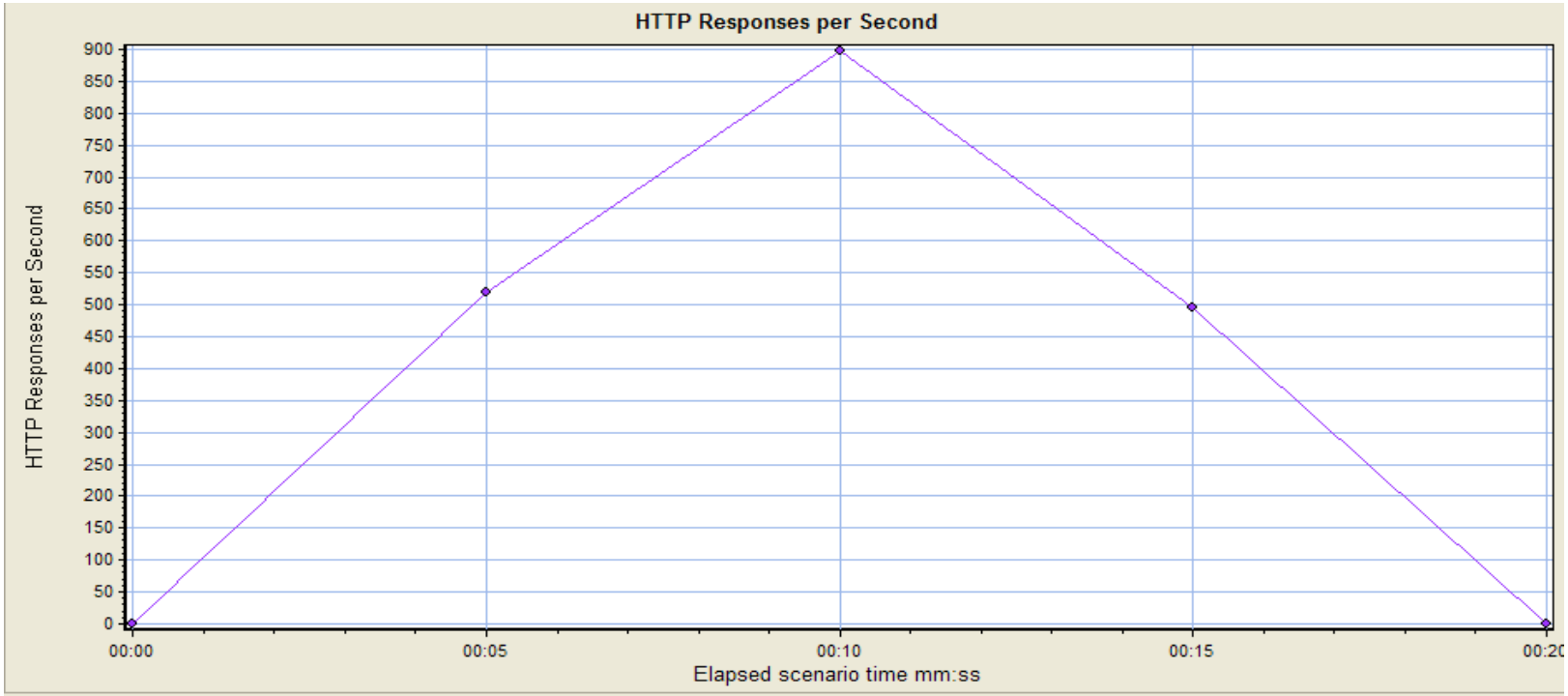
## (4) TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 19.9 | 57 | 7 | 22.103 |

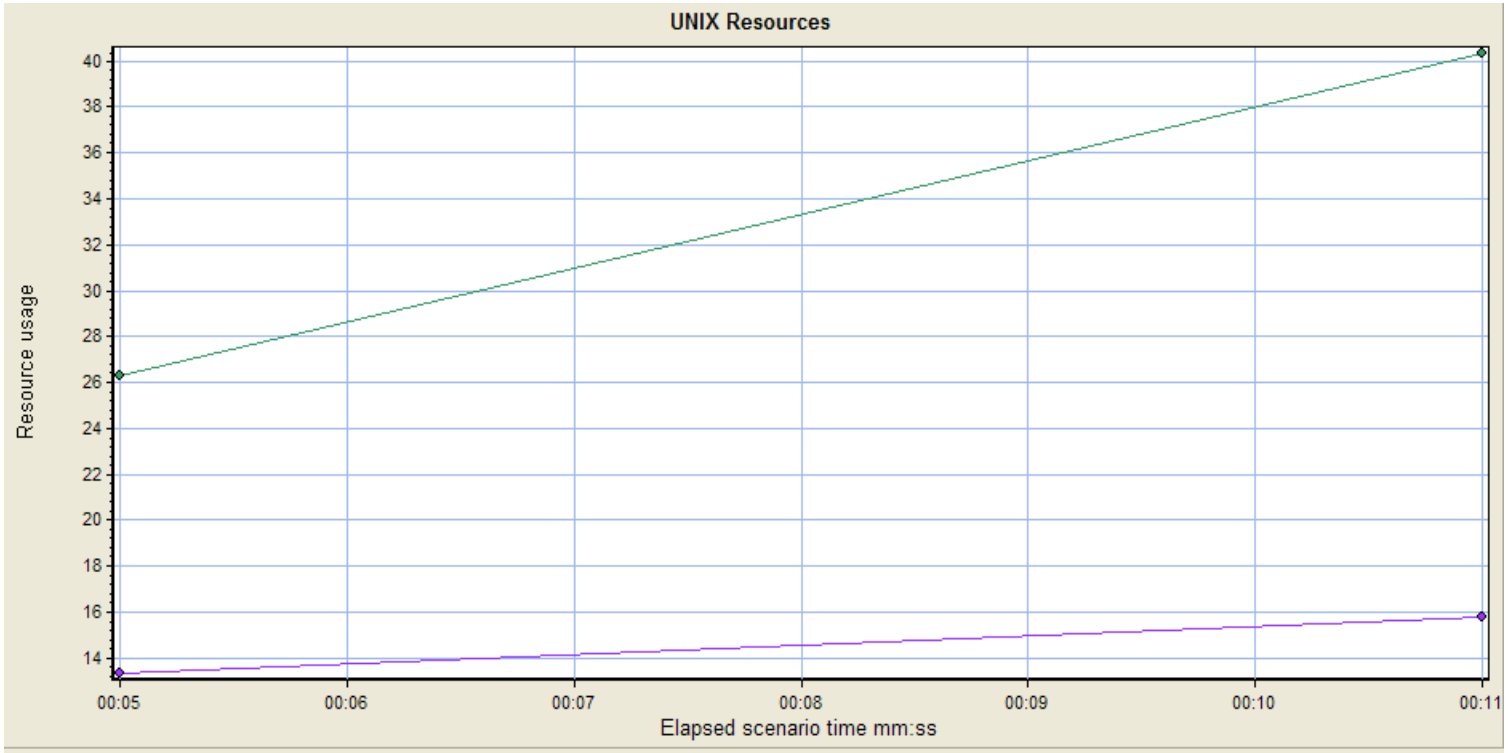
## (5) RPS(Request Per Second)




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 477.6 | 897.6 | 494.4 | 343.2 |

## (6) UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 262.667 | 333 | 403.333 | 70.333 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 13.333 | 14.568 | 15.803 | 1.235 |

(7) 列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90% 事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 320 | 0.595 | 7.732 | 13.159 | 57,927,582 | 0 | 409.143 | 1142.4 | 0 | 17.048 | 74 | 0 | 409.143 | 1142.4 | 1.022,9.177,22.602 | 54.667,195.143,367.429 |
| 340 | 0.637 | 8.403 | 11.43 | 64,573,422 | 0 | 477.6 | 897.6 | 0 | 19.9 | 57 | 0 | 477.6 | 897.6 | 13.333,14.568,15.803 | 262.667,333,403.333 |

### 5.3.5.3 并发 350 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 350 |
| Total Throughput (bytes): | | 39,610,602 |
| Average Throughput (bytes/second): | | 2,084,769 |
| Total Hits: | | 7,662 |
| Average Hits per Second: | | 403.263 |
| Total Errors: | | 142 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

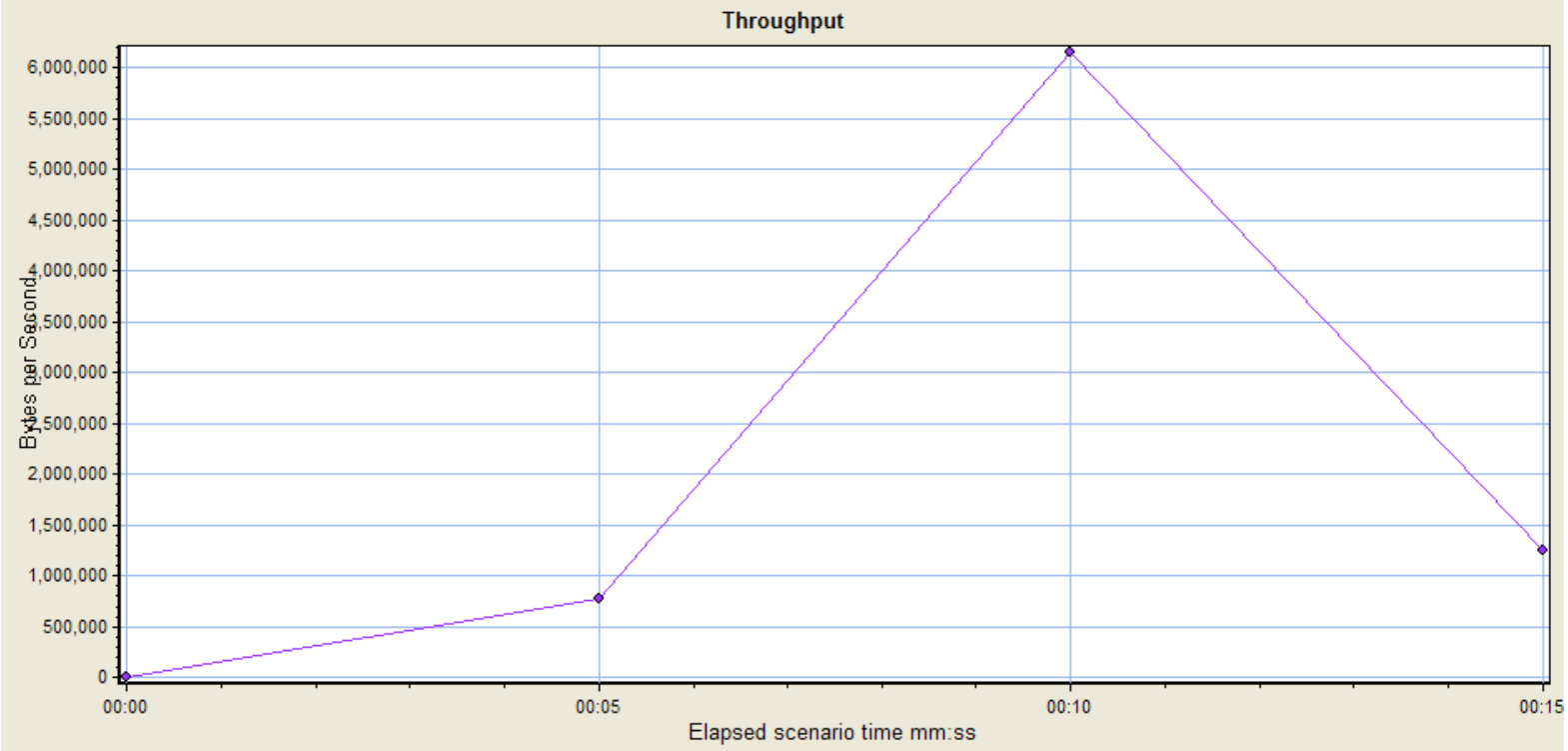
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 28 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

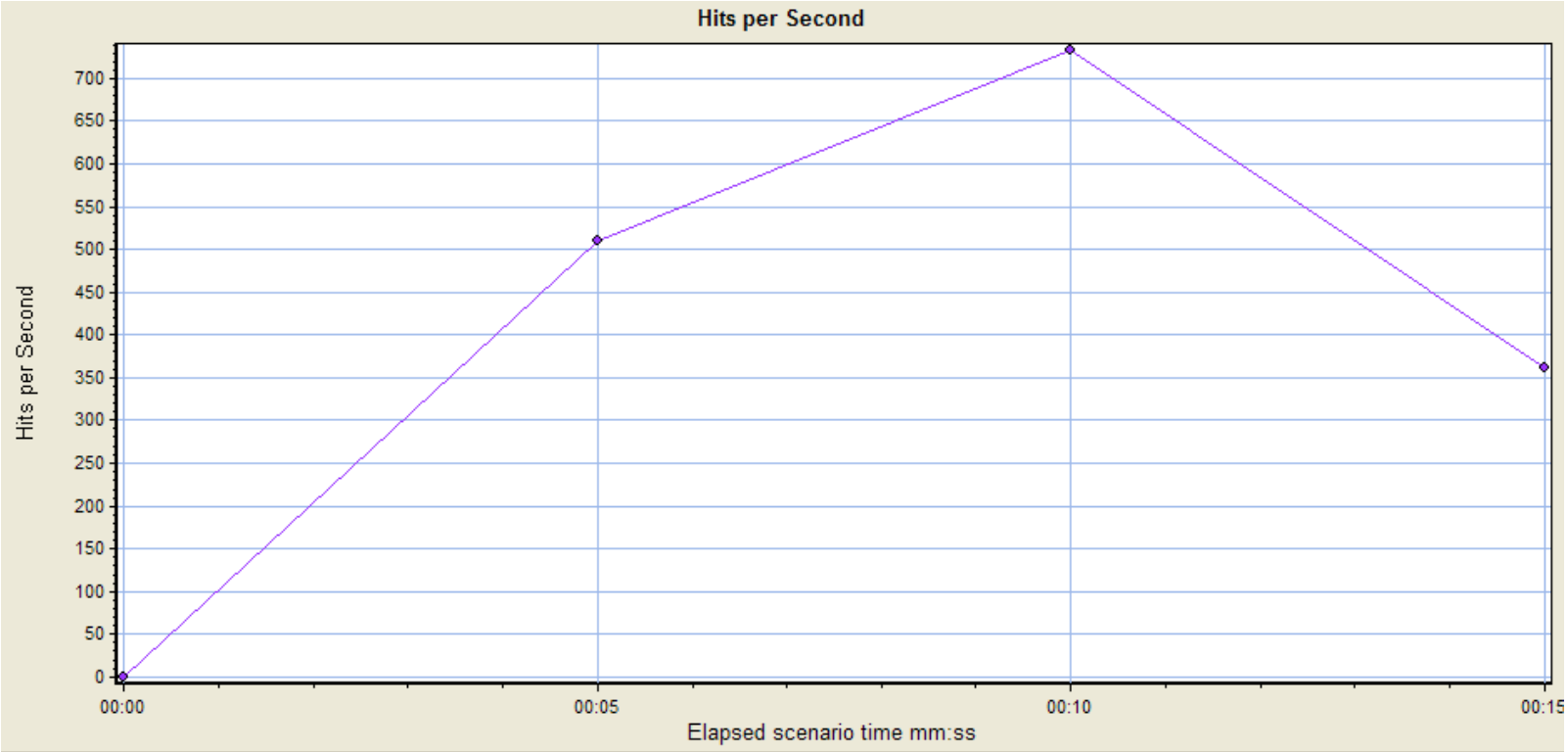
Transactions: Total Passed: 966 Total Failed: 142 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 1.033 | 4.697 | 10.976 | 2.214 | 8.306 | 266 | 142 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 350 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 350 | 0 | 0 |

(2)吞吐量


Throughput
6,000,000
5,500,000
5,000,000
4,500,000
4,000,000
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
Bytes per Second
00:00
00:05
00:10
00:15
Elapsed scenario time mm:ss
Legend
Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation
1 | Throughput | 0 | 2084768.526 | 6151765.2 | 1239819.75 | 2413496.418

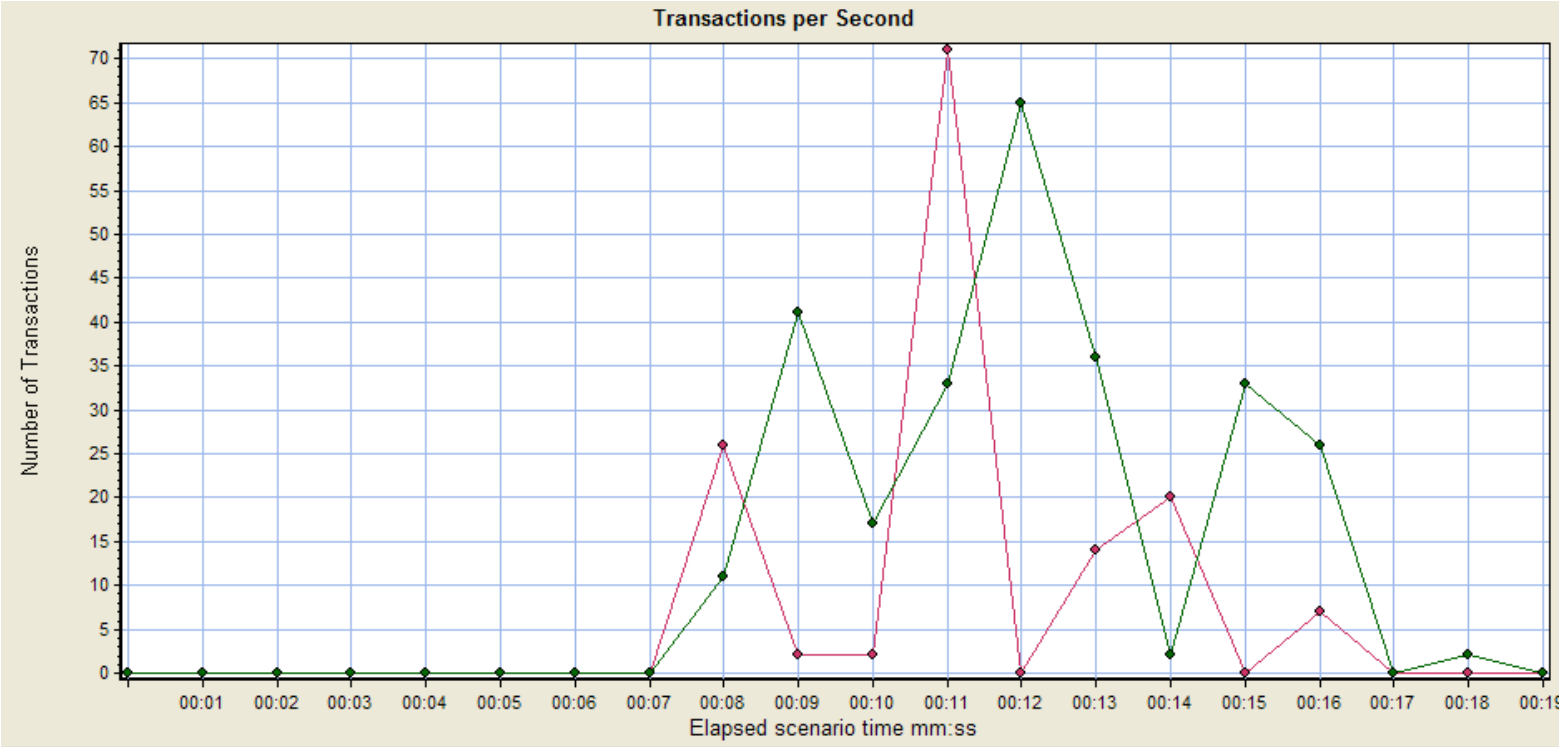
（3）点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 403.263 | 732.8 | 510 | 266.596 |

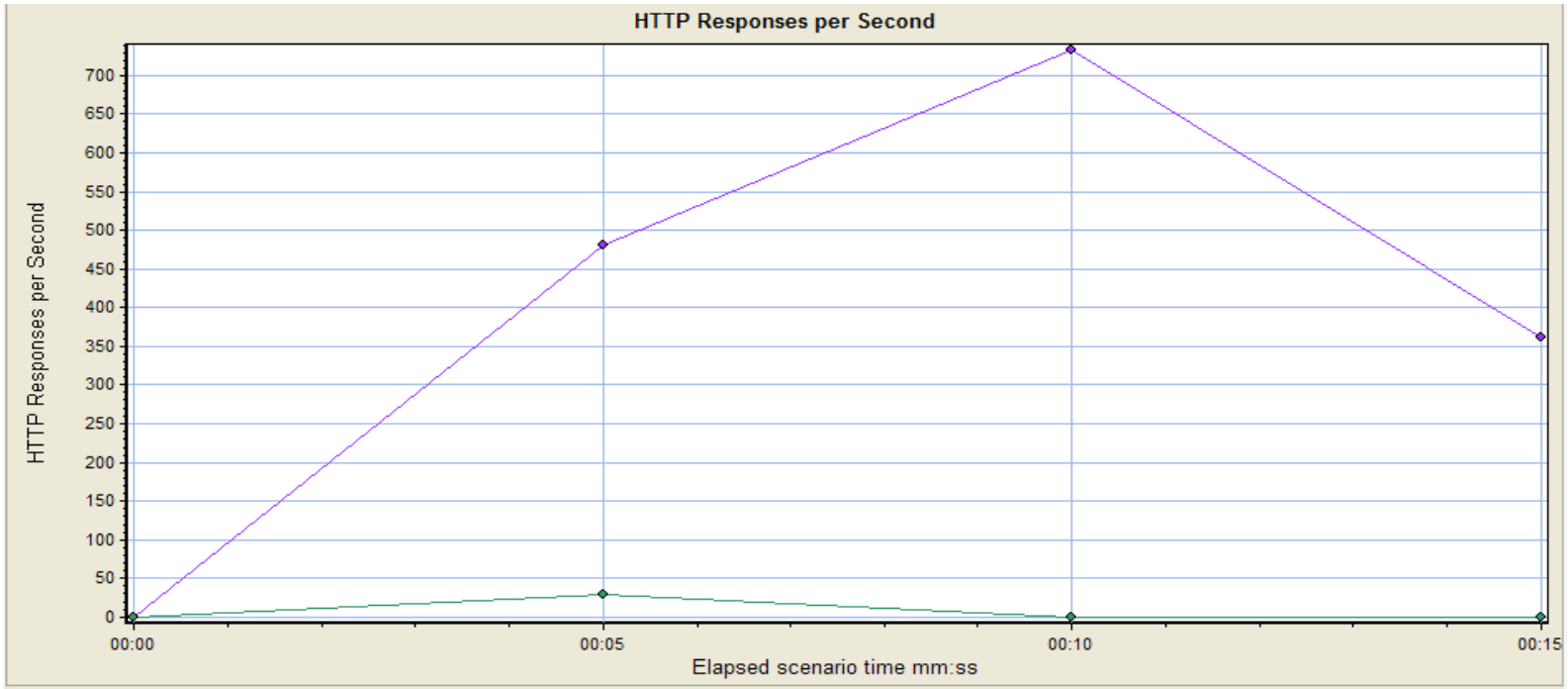
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Fail | 0 | 7.474 | 71 | 0 | 16.373 |
| ☑ | 1 | Action_Transaction:Pass | 0 | 14 | 65 | 2 | 18.623 |

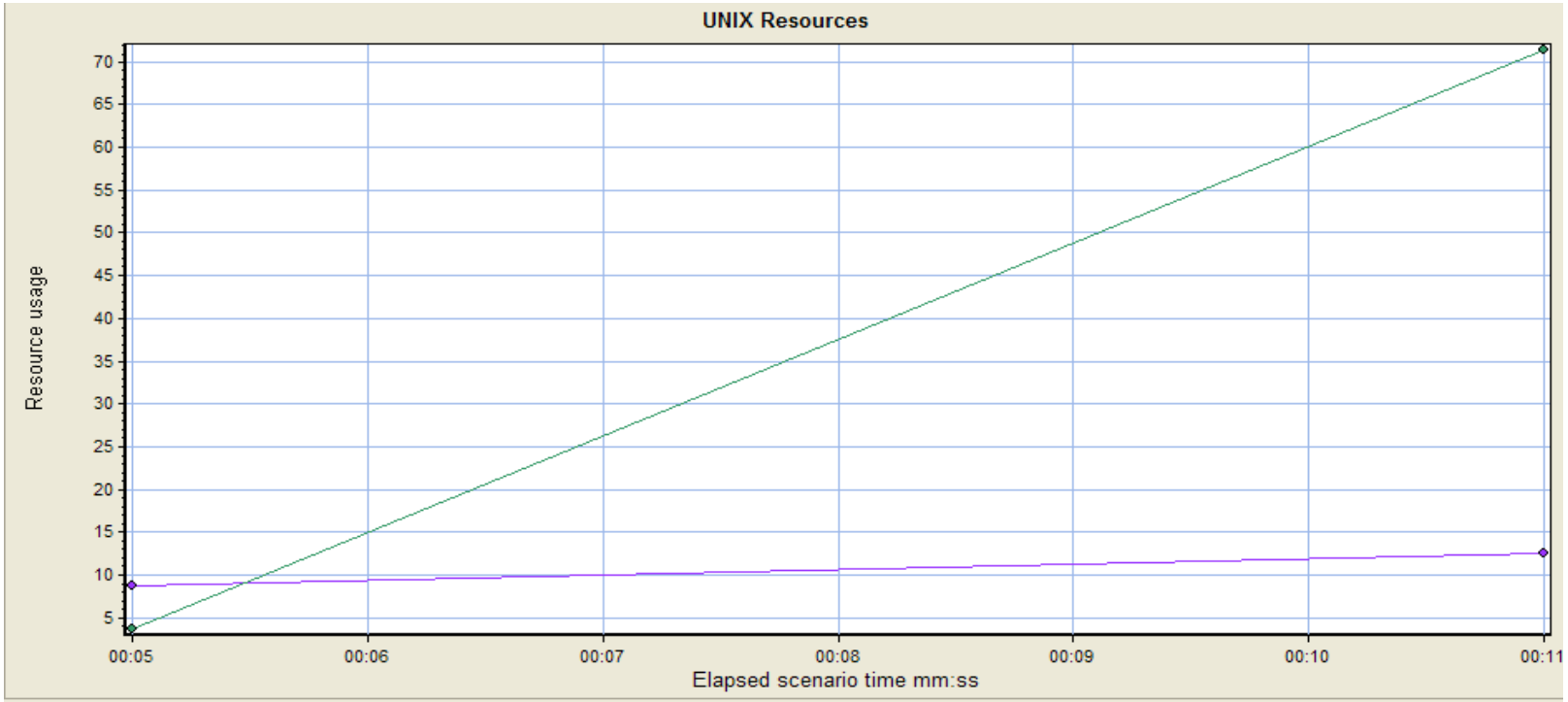
（5）RPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 395.789 | 732.8 | 481.6 | 263.969 |
| ☑ | 1 | HTTP_404 | 0 | 7.474 | 28.4 | 0 | 12.298 |

## (6)UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 36.667 | 375.334 | 714 | 338.667 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 8.648 | 10.542 | 12.436 | 1.894 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 320 | 0.595 | 7.732 | 13.159 | 57,927,582 | 0 | 409.143 | 1142.4 | 0 | 17.048 | 74 | 0 | 409.143 | 1142.4 | 1.022,9.177,22.602 | 54.667,195.143,367.429 |
| 340 | 0.637 | 8.403 | 11.43 | 64,573,422 | 0 | 477.6 | 897.6 | 0 | 19.9 | 57 | 0 | 477.6 | 897.6 | 13.333,14.568,15.803 | 262.667,333,403.333 |
| 350 | 1.033 | 8.306 | 10.976 | 39,610,602 | 0 | 403.263 | 732.8 | 0 | 14 | 65 | 0 | 395.789 | 732.8 | 8.648,10.542,12.436 | 36.667,375.334,714 |

## 小结

在运行 350 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：

2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resource temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 22.602%，Paging Rate 最高为 403.33 * 0.1=40.3,吞吐量最大为：64,573,422Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，搜索页该单台所能承受的并发最好情况为 340.

### 5.3.6 媒资详情

#### 5.3.6.1 并发 260 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 260 |
| Total Throughput (bytes): | | 35,502,740 |
| Average Throughput (bytes/second): | | 2,218,921 |
| Total Hits: | | 6,240 |
| Average Hits per Second: | | 390 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

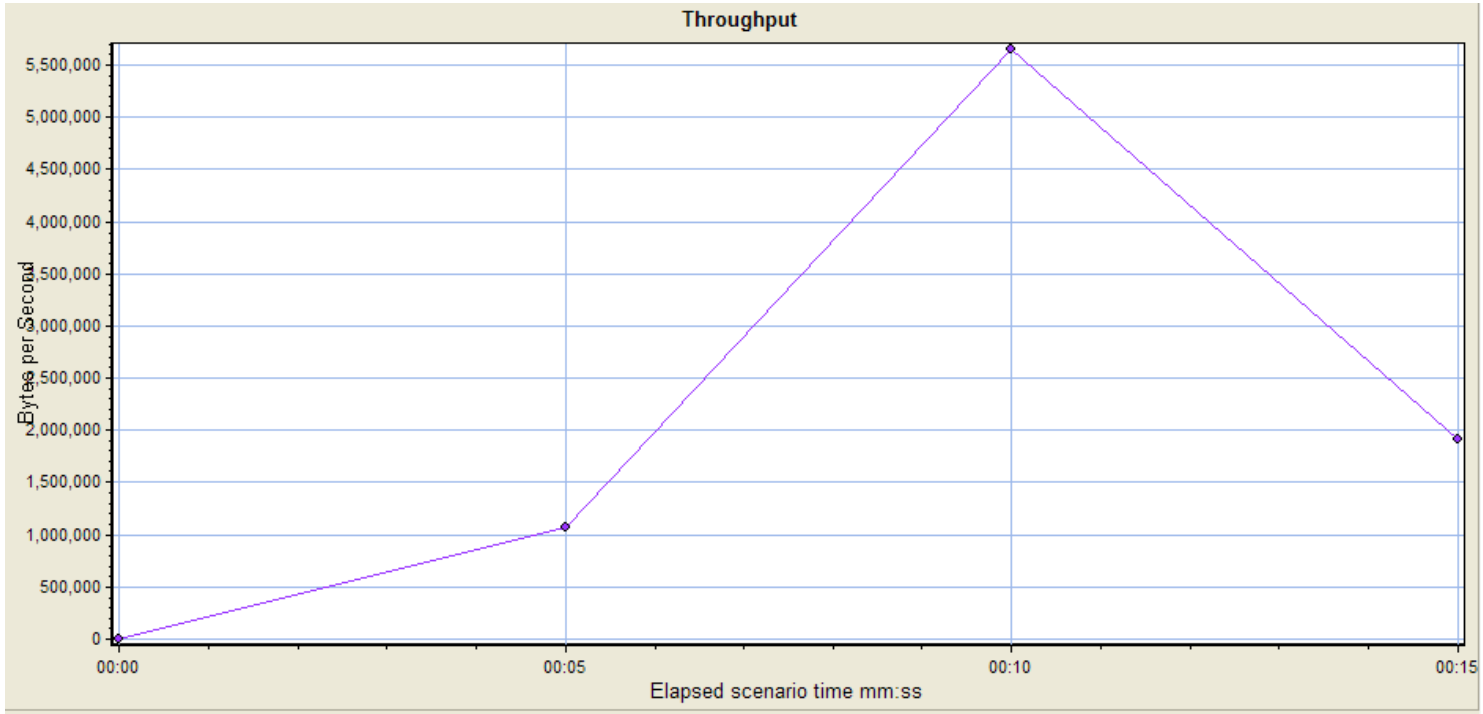
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 780 Total Failed: 0 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 2.436 | 5.684 | 8.964 | 1.732 | 7.691 | 260 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 260 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.003 | 0 | 0.003 | 260 | 0 | 0 |

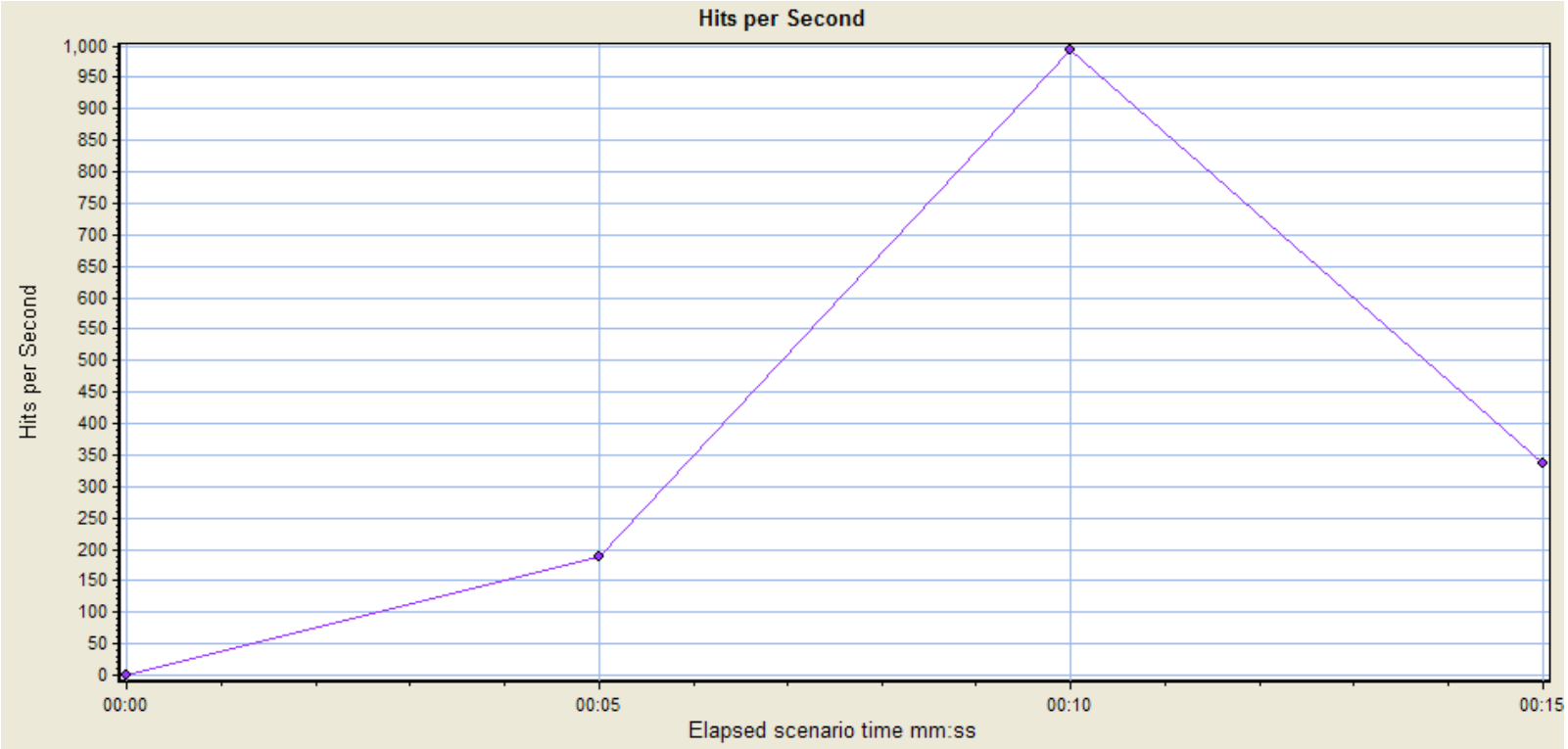
(2)吞吐量




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 2218921.25 | 5653128.6 | 1911686 | 2128851.024 |

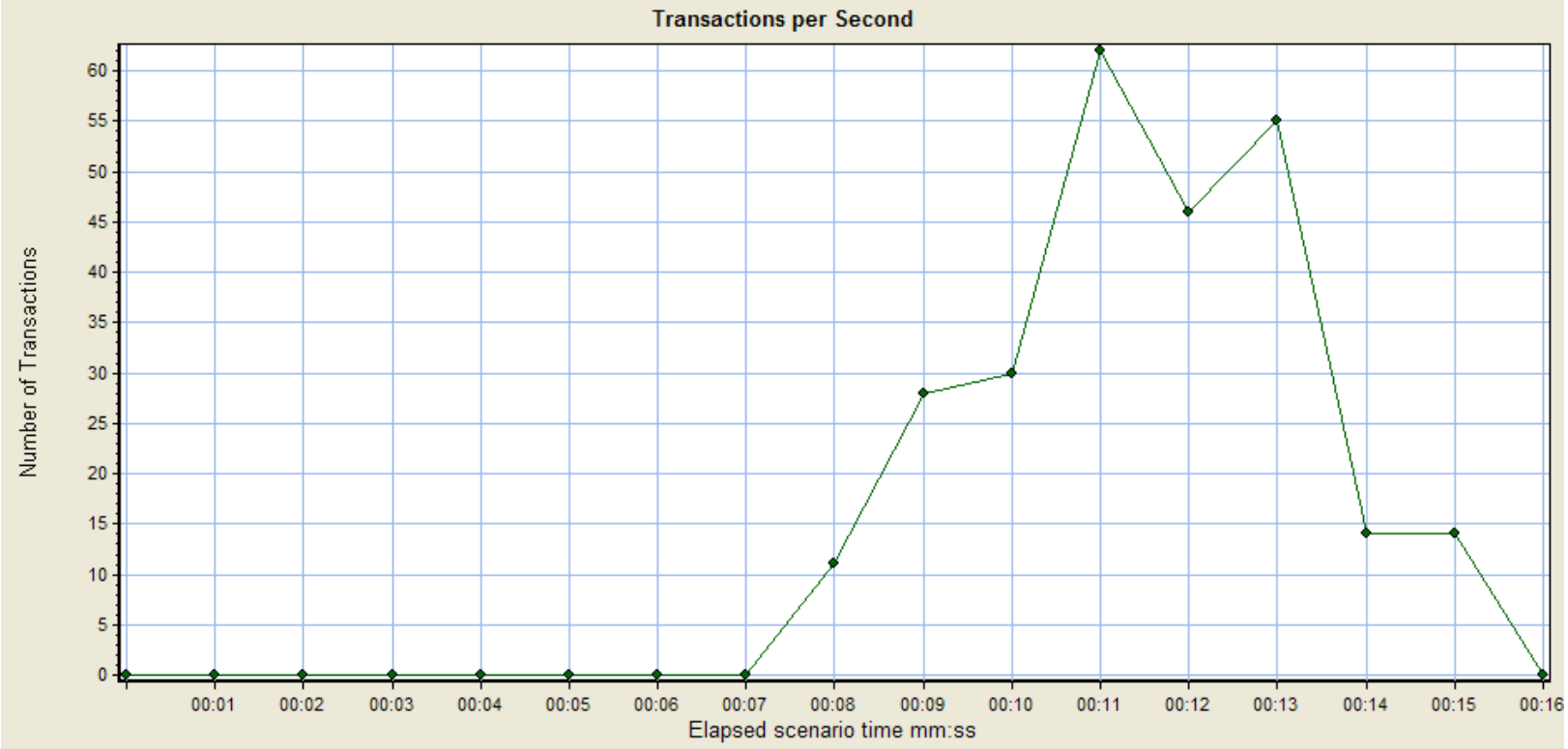
（3）点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 390 | 993.6 | 336 | 374.169 |

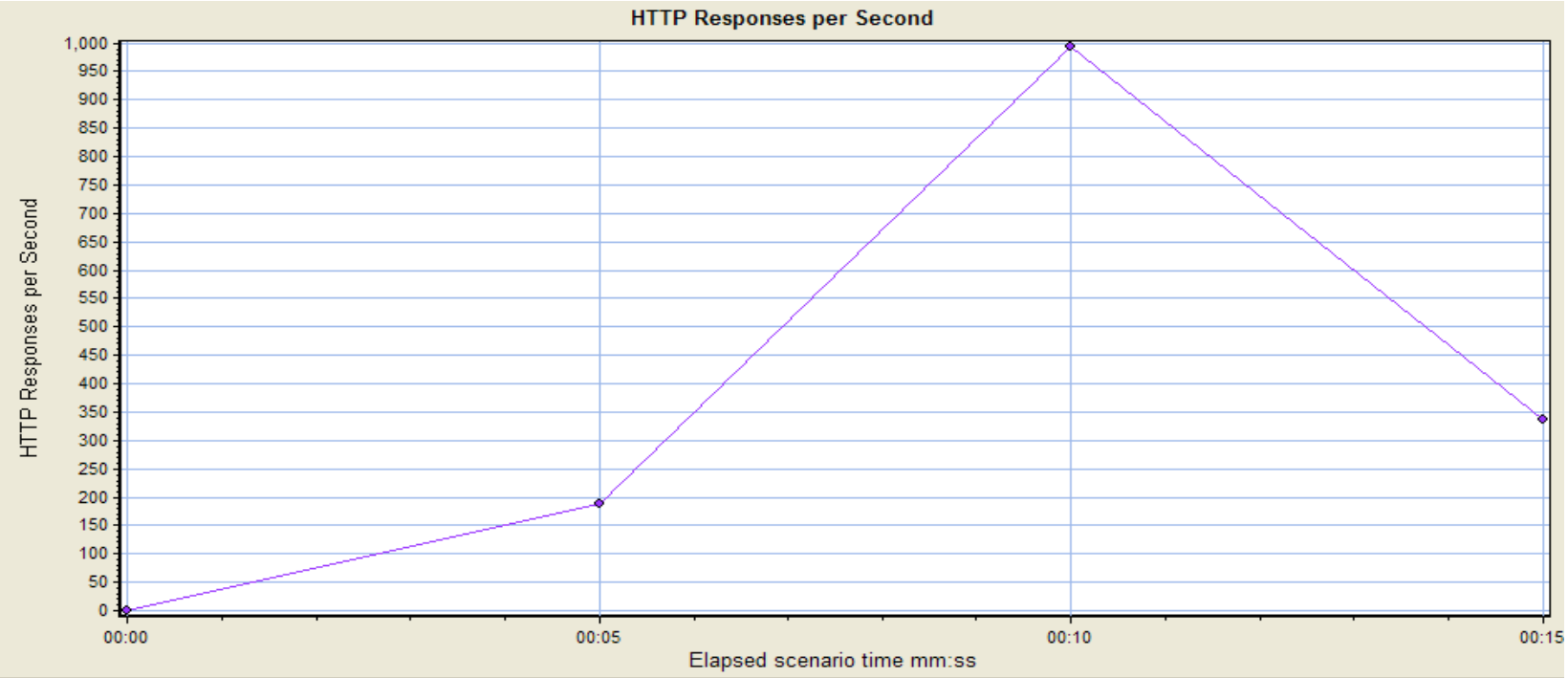
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 16.25 | 62 | 0 | 20.588 |

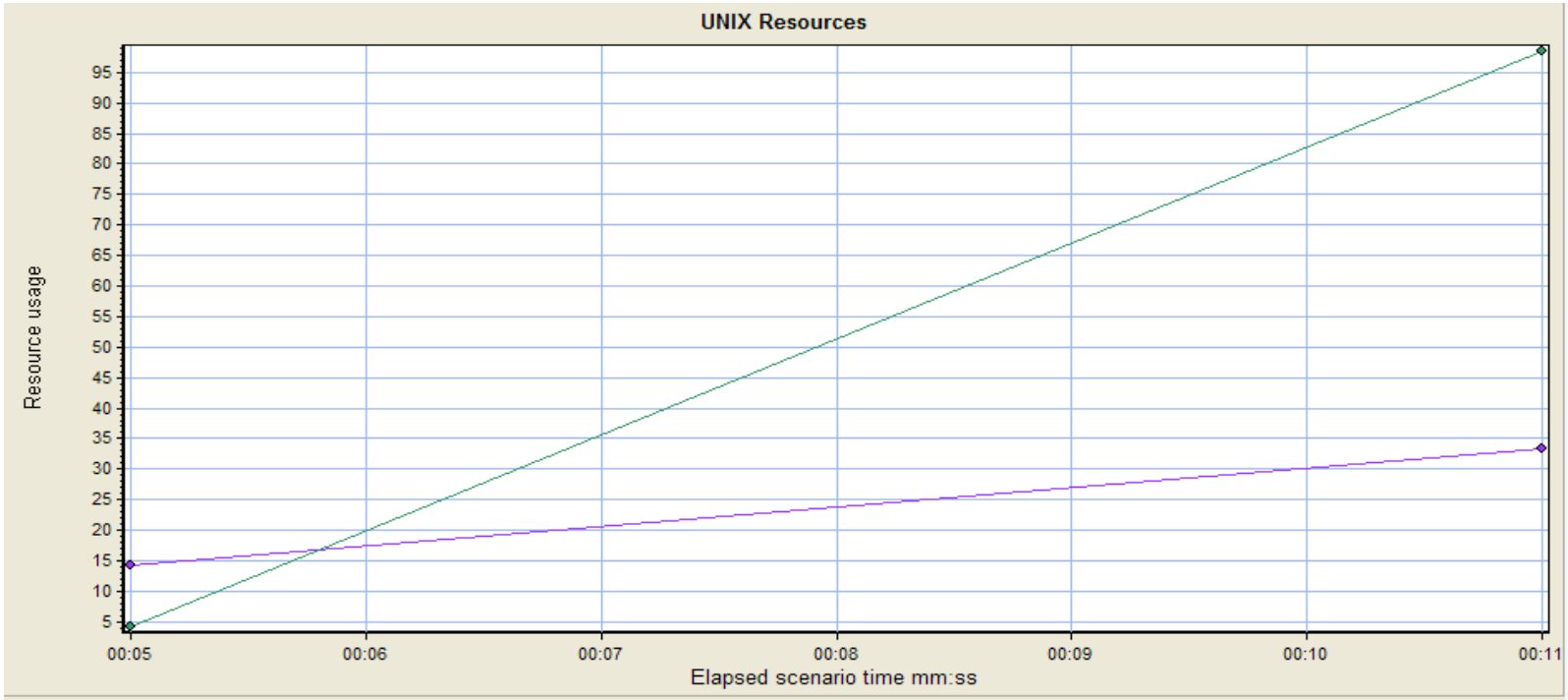
（5）RPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 390 | 993.6 | 336 | 374.169 |

## （6）UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 42 | 513.333 | 984.667 | 471.334 |
| ☑ | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 14.223 | 23.751 | 33.278 | 9.528 |

（7）列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 260 | 2.436 | 7.691 | 8.964 | 35,502,740 | 0 | 390 | 993.6 | 0 | 16.25 | 62 | 0 | 390 | 993.6 | 14.223,23.751,33.278 | 42,513.333,984.667 |

### 5.3.6.2 并发 320 虚拟用户

# (1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 320 |
| Total Throughput (bytes): | | 34,349,415 |
| Average Throughput (bytes/second): | | 1,908,301 |
| Total Hits: | | 7,092 |
| Average Hits per Second: | | 394 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

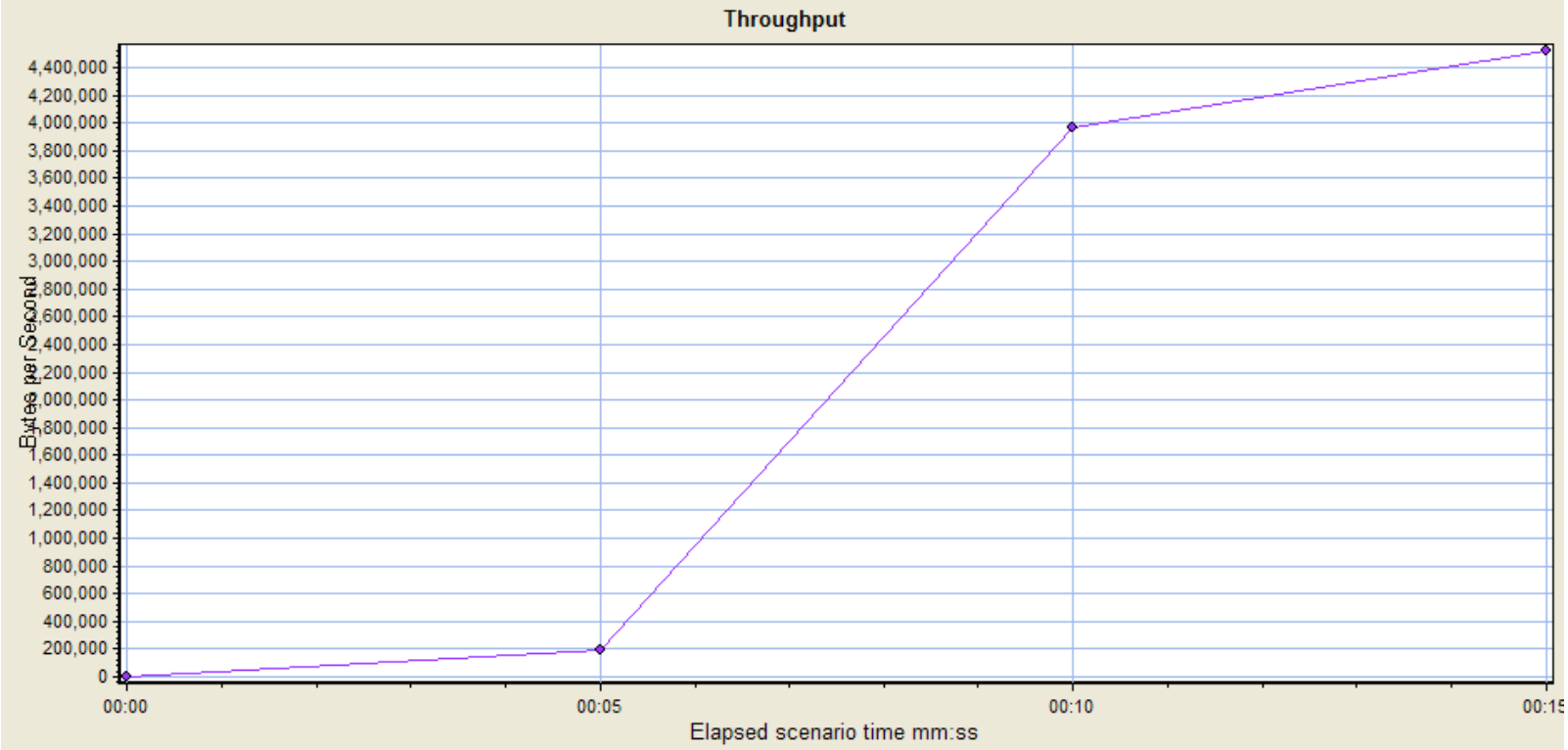
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 960 Total Failed: 0 Total Stopped: 0 Average Response Time

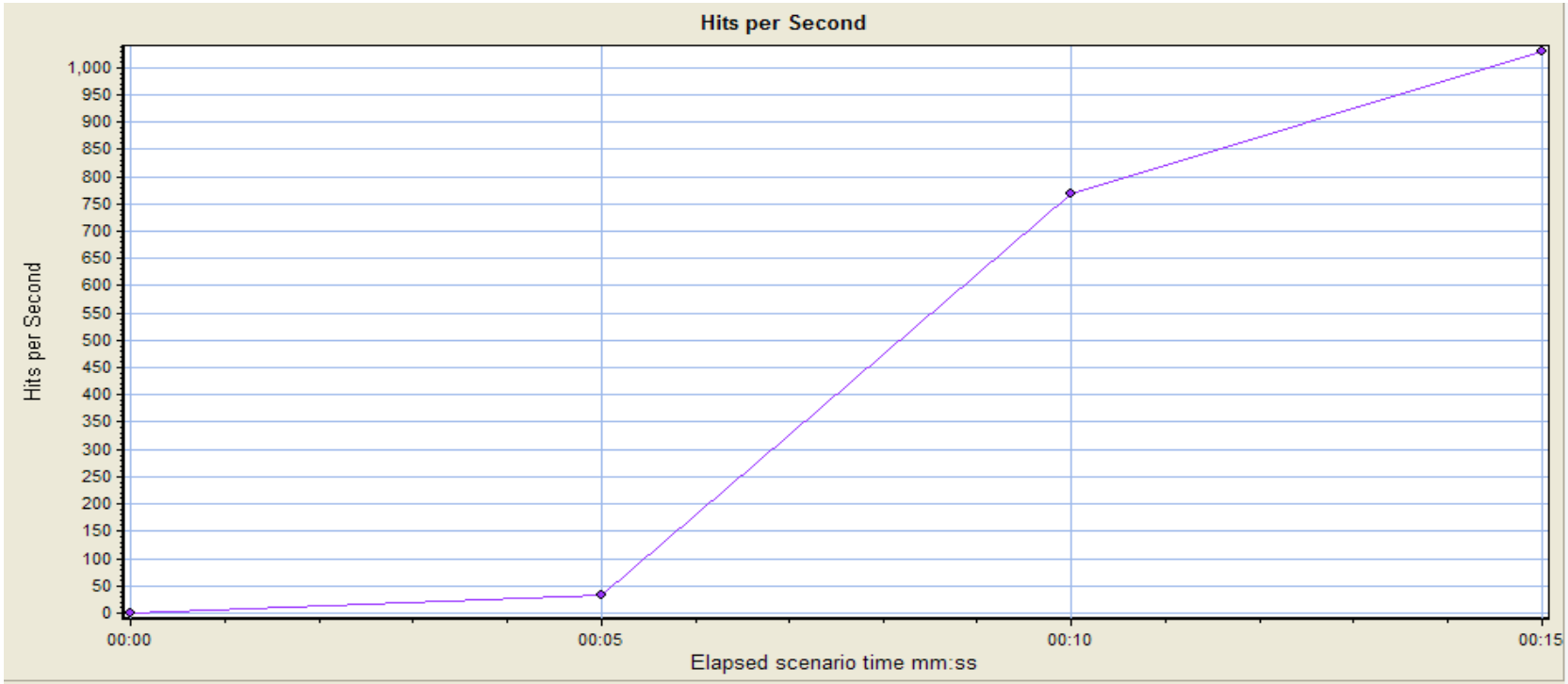
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 2.278 | 7.077 | 10.09 | 1.556 | 8.436 | 320 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 320 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 320 | 0 | 0 |

(2)吞吐量




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 1908300.833 | 4521508.333 | 3965722.6 | 2084378.847 |

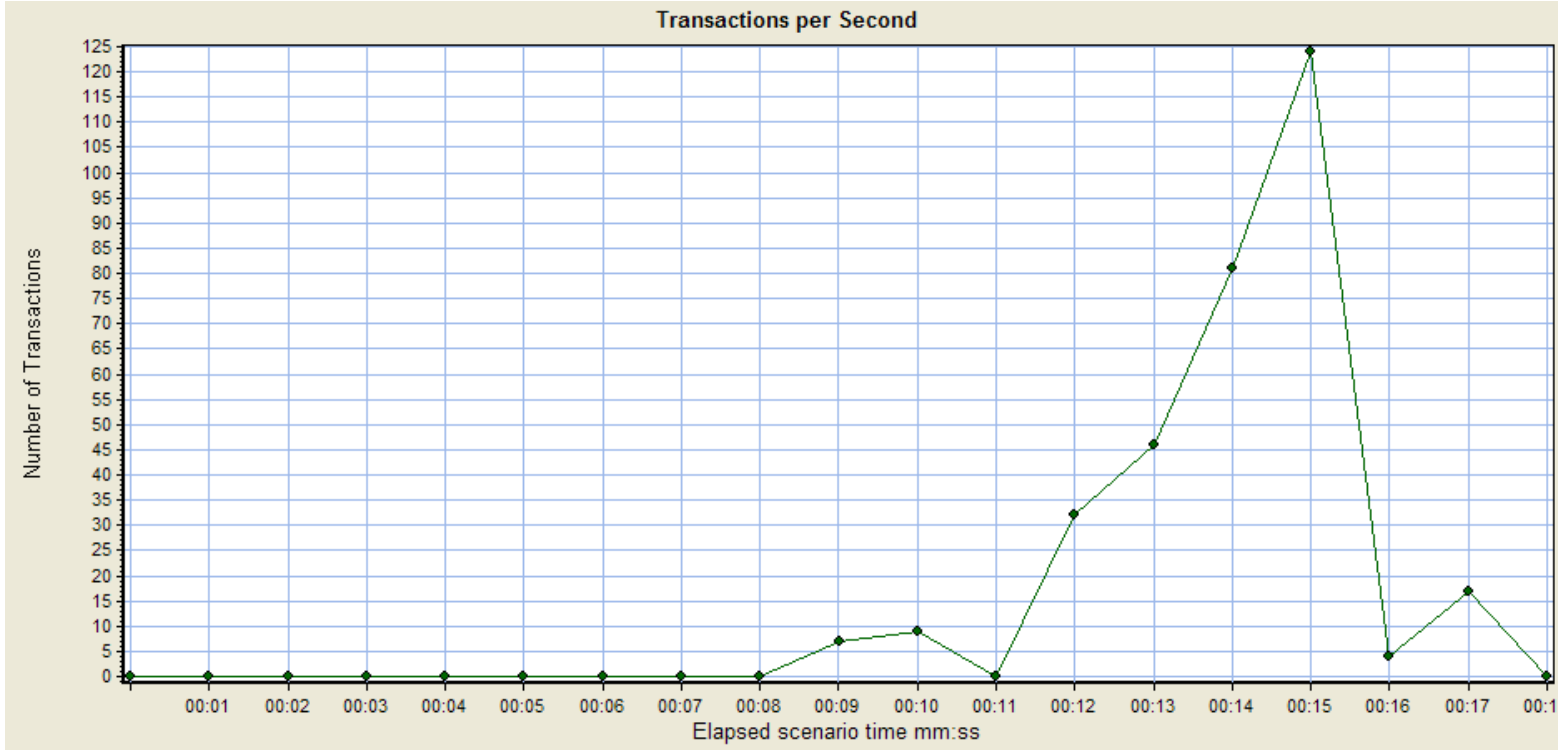
（3）点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 394 | 1029.333 | 767.2 | 450.529 |

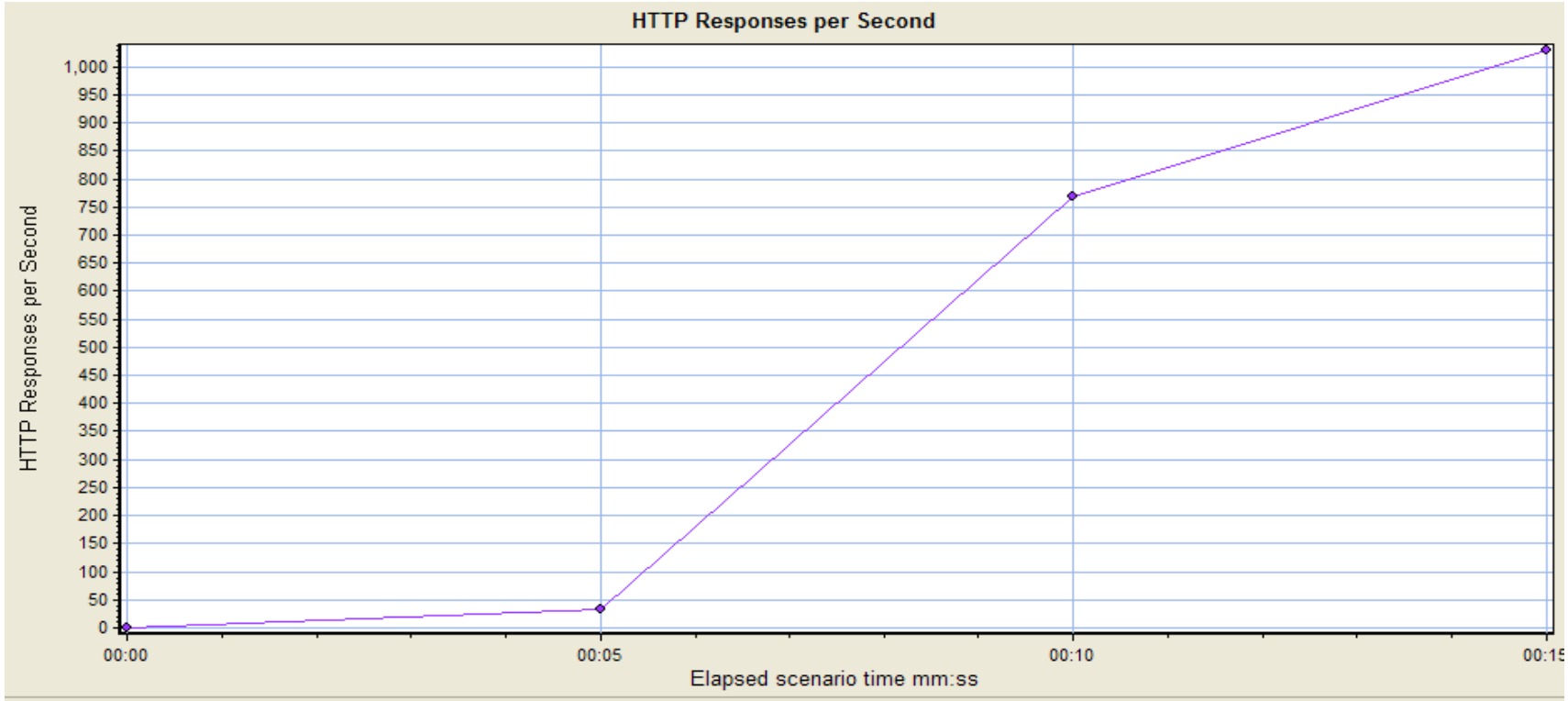
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 17.778 | 124 | 0 | 32.544 |

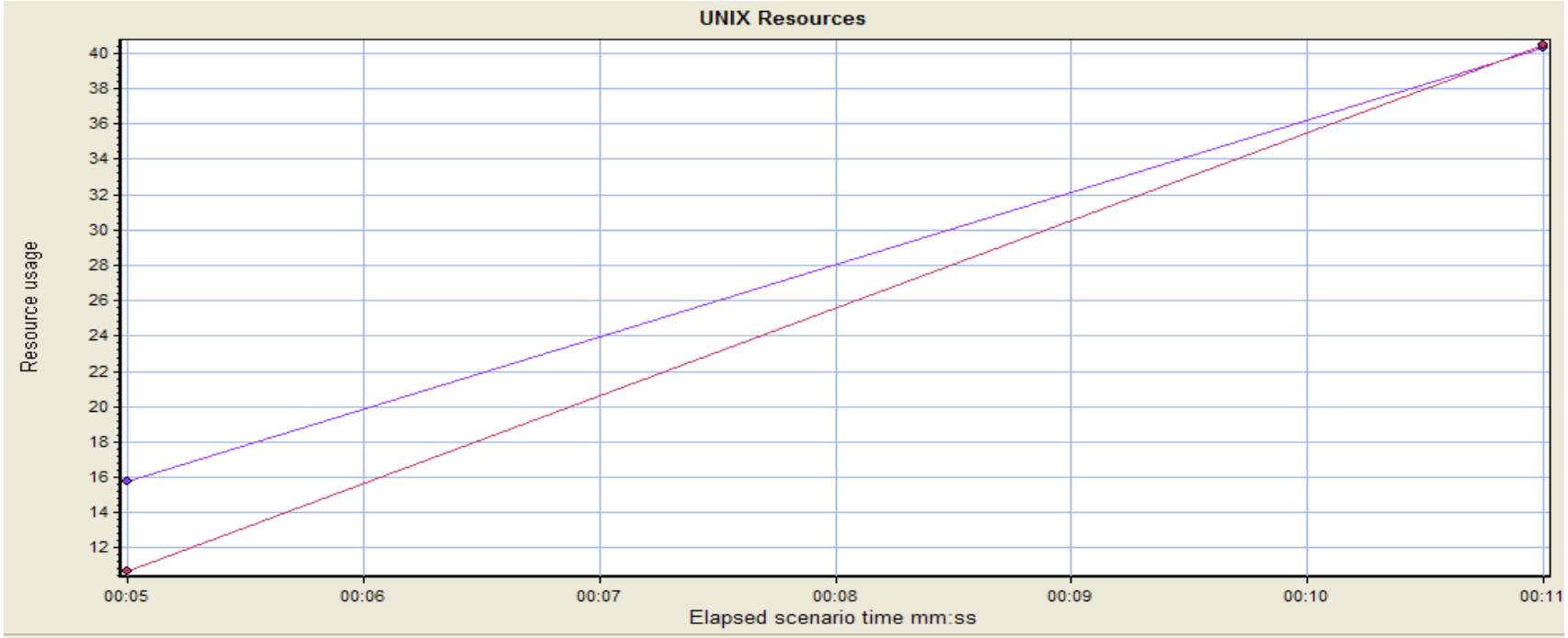
（5）RPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 394 | 1029.333 | 767.2 | 450.529 |

## （6）UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 1 | User mode CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 10.685 | 25.578 | 40.471 | 14.893 |
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 158 | 280.667 | 403.333 | 122.666 |

（7）列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 260 | 2.436 | 7.691 | 8.964 | 35,502,740 | 0 | 390 | 993.6 | 0 | 16.25 | 62 | 0 | 390 | 993.6 | 14.223,23.751,33.278 | 42,513.333,984.667 |
| 320 | 2.278 | 8.436 | 10.09 | 34,349,415 | 0 | 394 | 1029.333 | 0 | 17.778 | 124 | 0 | 394 | 1029.333 | 10.685,25.578,40.471 | 158,280.667,403.33 |

### 5.3.6.3 并发 340 虚拟用户

# (1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 340 |
| Total Throughput (bytes): | | 39,152,481 |
| Average Throughput (bytes/second): | | 2,060,657 |
| Total Hits: | | 7,765 |
| Average Hits per Second: | | 408.684 |
| Total Errors: | | 1 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

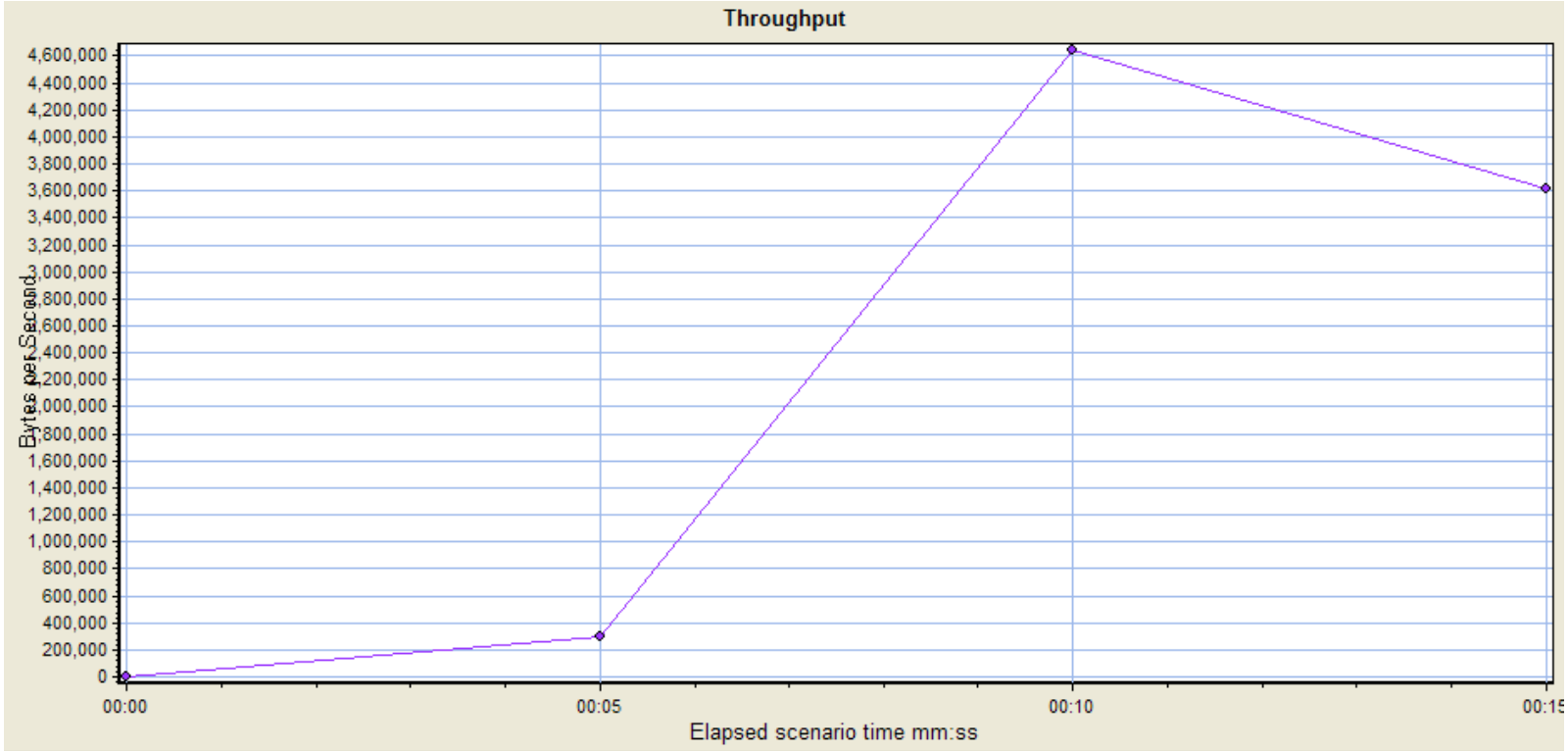
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0.2 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 1,024 Total Failed: 1 Total Stopped: 0 Average Response Time

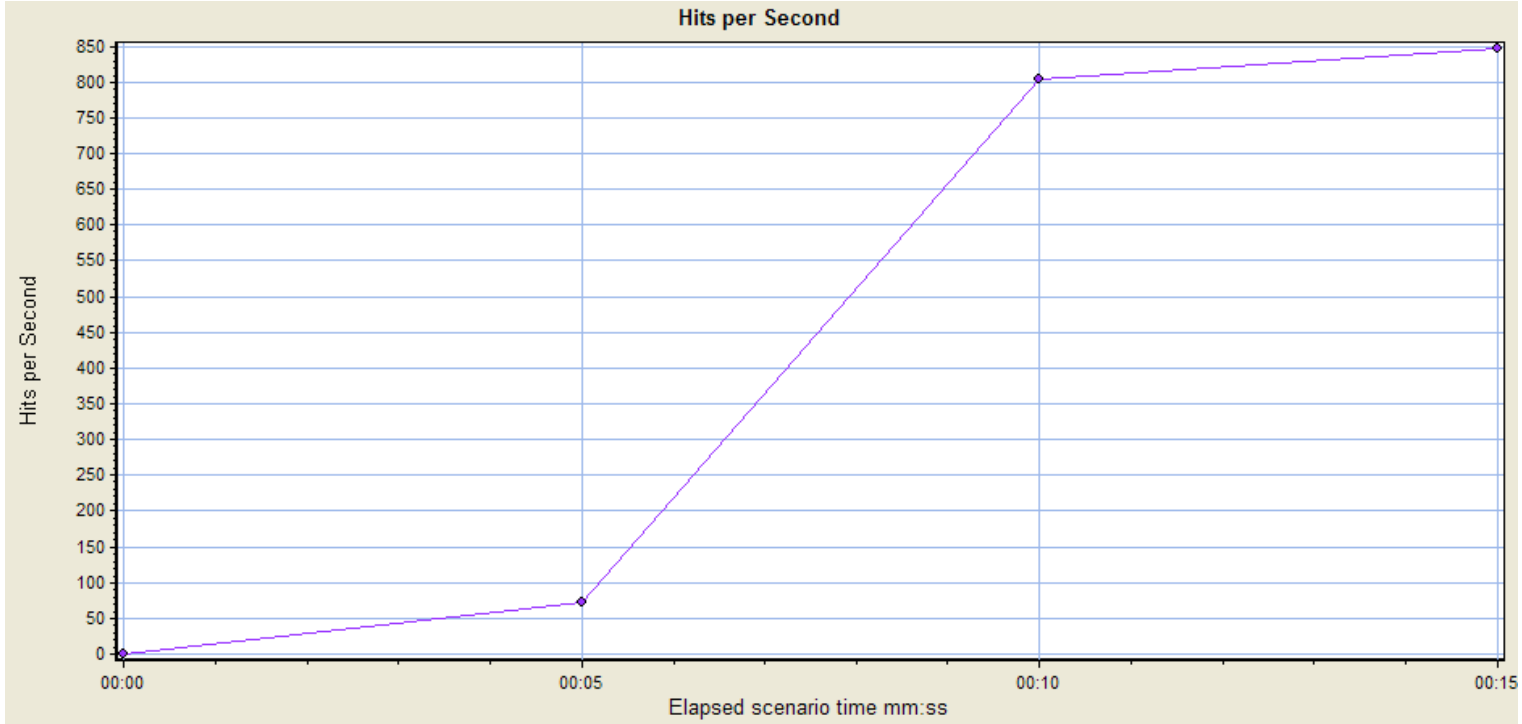
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 1.106 | 7.013 | 10.519 | 2.047 | 8.945 | 344 | 1 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 340 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 340 | 0 | 0 |

(2)吞吐量




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 2060656.895 | 4642600.6 | 3609230.5 | 2023916.526 |

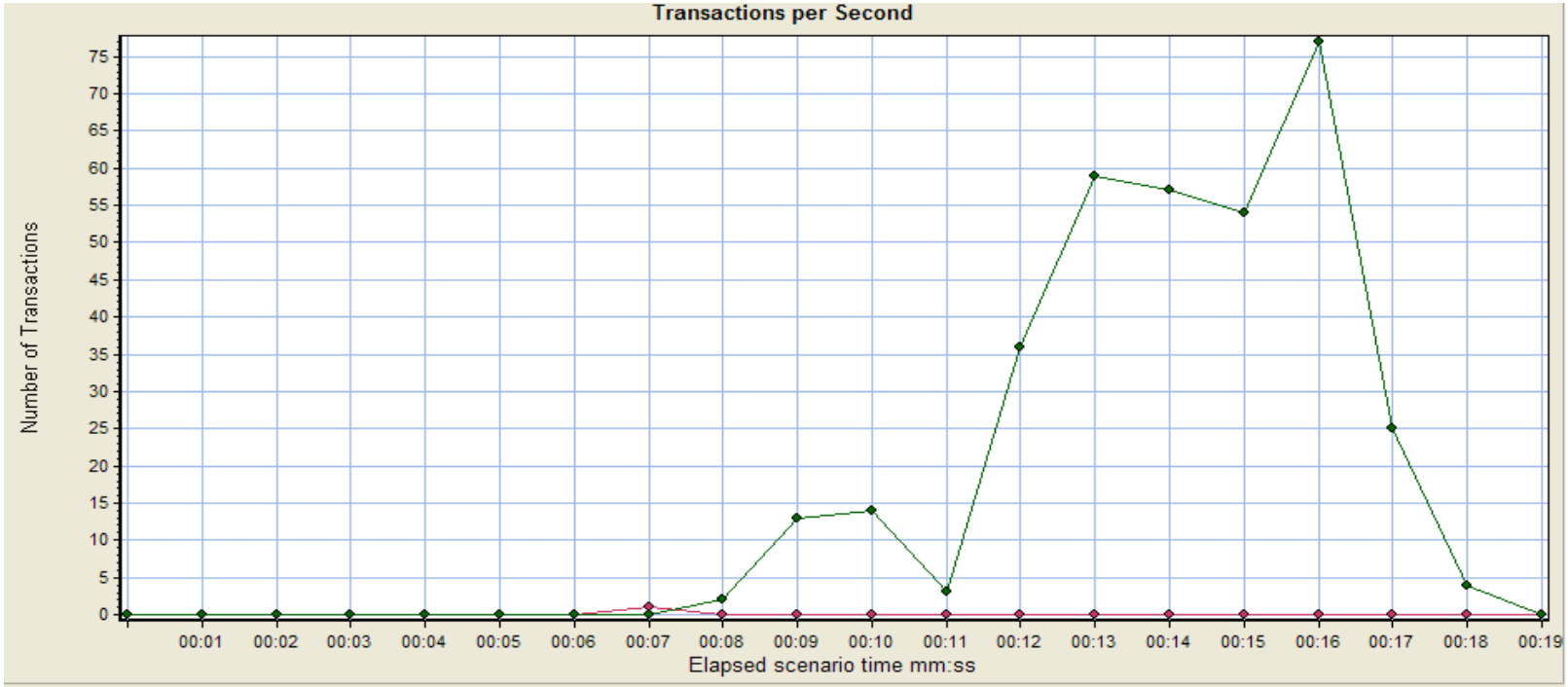
（3）点击率




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 408.684 | 847 | 803.2 | 395.628 |

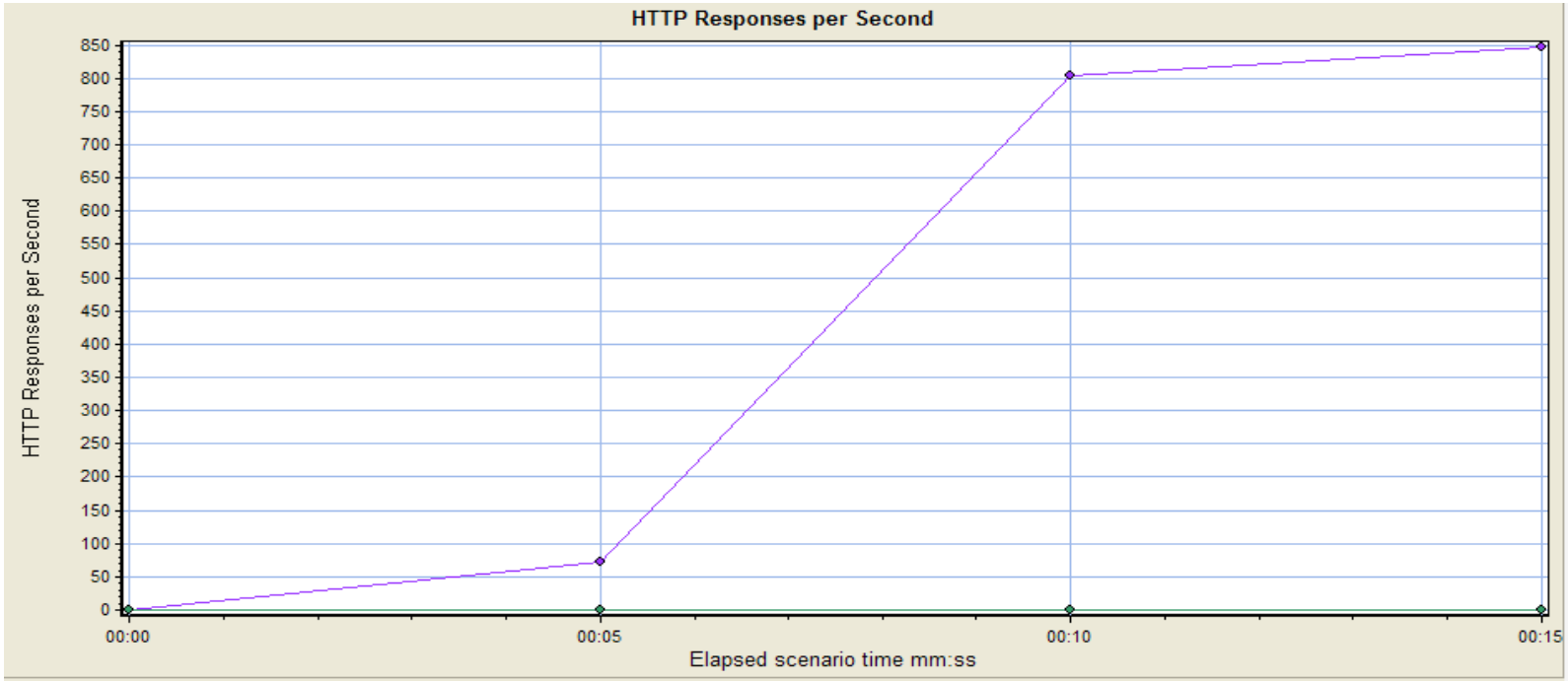
（4）TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Fail | 0 | 0.053 | 1 | 0 | 0.218 |
| ☑ | 1 | Action_Transaction:Pass | 0 | 18.105 | 77 | 3 | 24.468 |

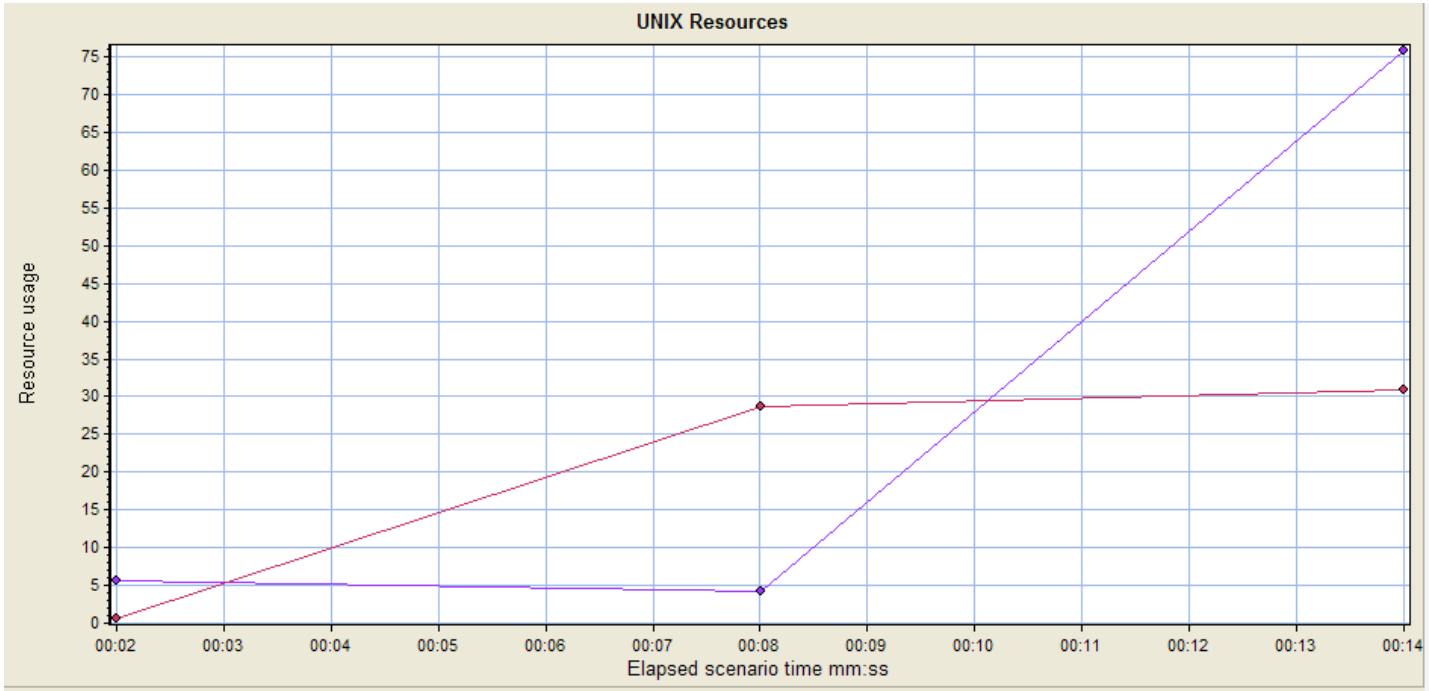
（5）RPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 408.632 | 847 | 803.2 | 395.673 |
| ☑ | 1 | HTTP_404 | 0 | 0.053 | 0.2 | 0 | 0.087 |

## （6）UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| ☑ | 1 | User mode CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 0.677 | 20.113 | 30.987 | 13.776 |
| ☑ | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 42 | 285.555 | 757.333 | 333.656 |

(7)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90%事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 260 | 2.436 | 7.691 | 8.964 | 35,502,740 | 0 | 390 | 993.6 | 0 | 16.25 | 62 | 0 | 390 | 993.6 | 14.223,23.751,33.278 | 42,513.333,984.667 |
| 320 | 2.278 | 8.436 | 10.09 | 34,349,415 | 0 | 394 | 1029.333 | 0 | 17.778 | 124 | 0 | 394 | 1029.333 | 10.685,25.578,40.471 | 158,280.667,403.33 |
| 340 | 1.106 | 8.945 | 10.519 | 39,152,481 | 0 | 408.684 | 847 | 0 | 18.105 | 77 | 0 | 408.632 | 847 | 0.677,20.113,30.987 | 42,285.555,757.333 |

## 小结

在运行 340 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：

2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resource temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 40.471%，Paging Rate 最高为 984.447*0.1=98.4, 吞吐量最大为：39,152,481Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，媒资详情页该单台所能承受的并发最好情况为 320.

### 5.3.7 专题详情

#### 5.3.7.1 并发 220 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 220 |
| Total Throughput (bytes): | | 52,826,470 |
| Average Throughput (bytes/second): | | 3,107,439 |
| Total Hits: | | 6,690 |
| Average Hits per Second: | | 393.529 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

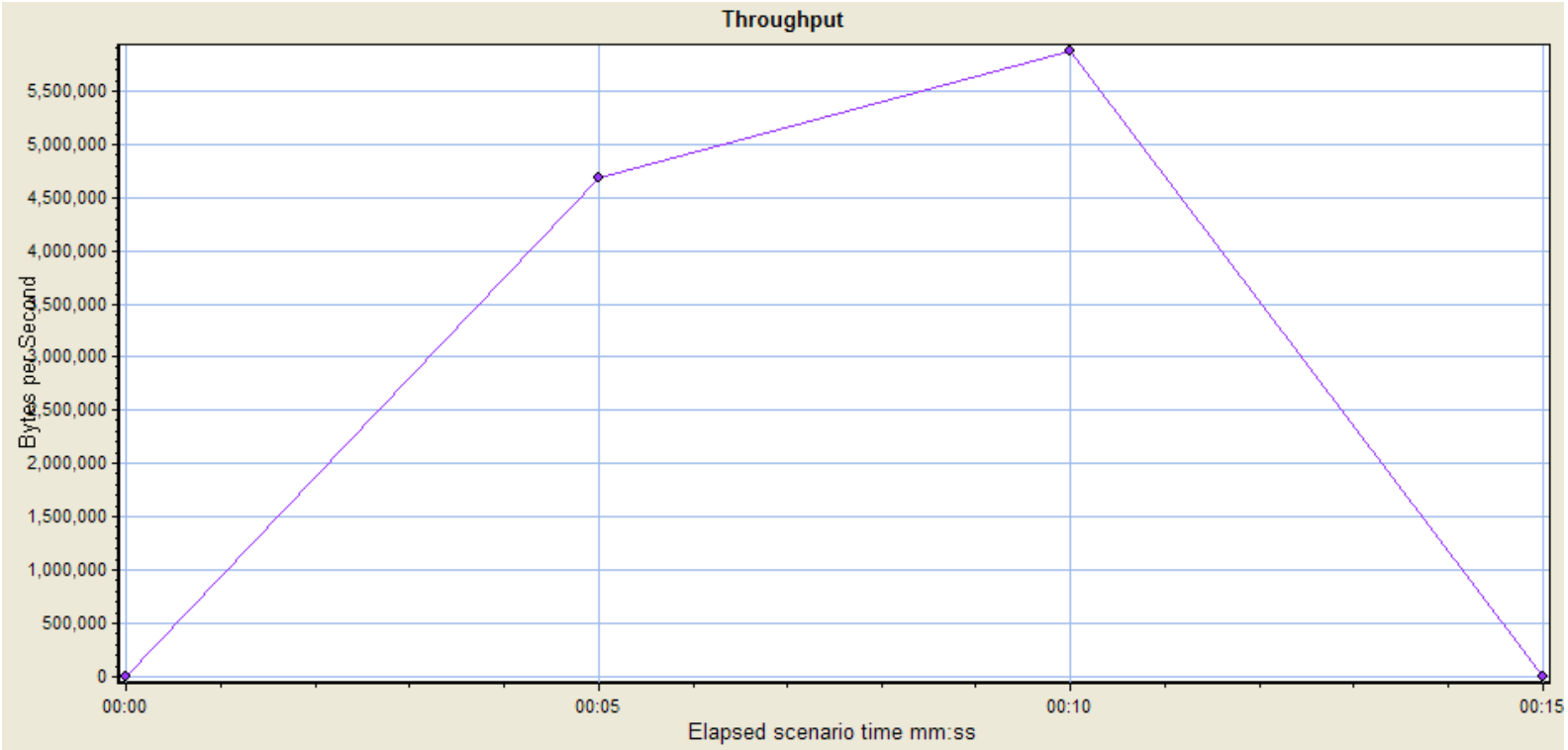
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 663 Total Failed: 0 Total Stopped: 0 Average Response Time

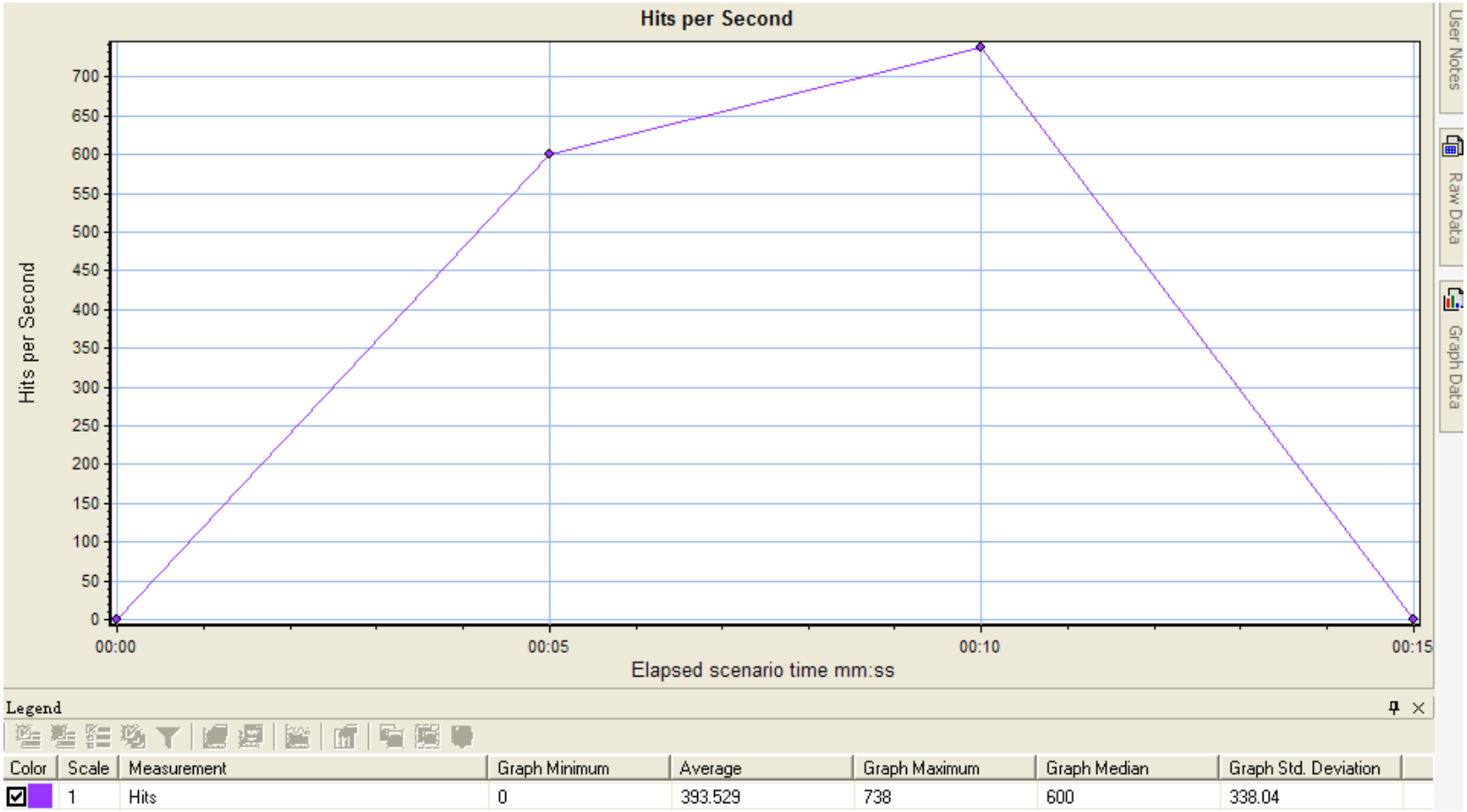
| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 1.146 | 6.278 | 11.389 | 2.84 | 10.691 | 223 | 0 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 220 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.002 | 0 | 0.002 | 220 | 0 | 0 |

(2)吞吐量

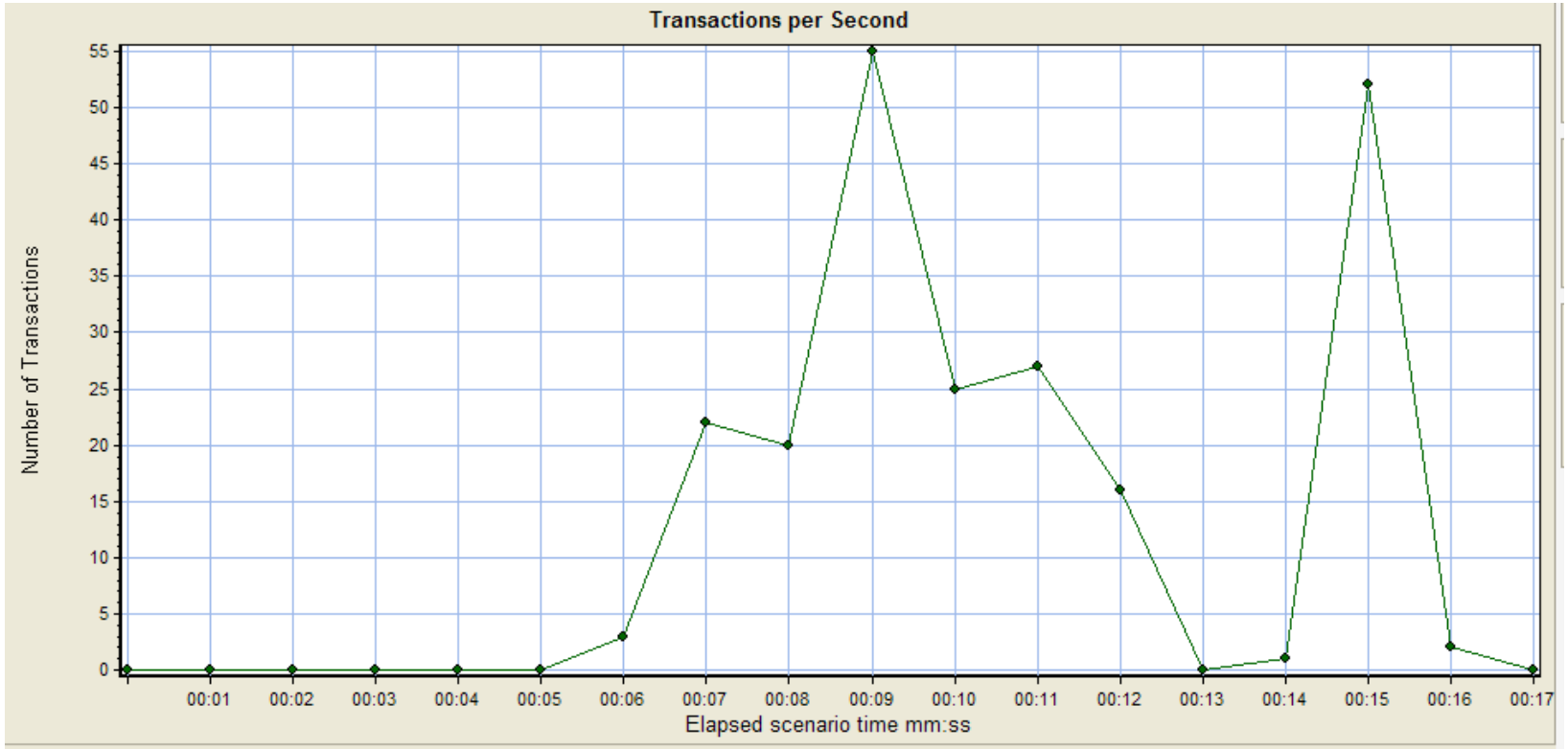



| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 3107439.412 | 5872925 | 4690422 | 2672524.128 |

（3）点击率


Hits per Second
Hits per Second
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
00:00
00:05
00:10
00:15
Elapsed scenario time mm:ss
User Notes
Raw Data
Graph Data
Legend
Color
Scale
Measurement
Graph Minimum
Average
Graph Maximum
Graph Median
Graph Std. Deviation
1
Hits
0
393.529
738
600
338.04

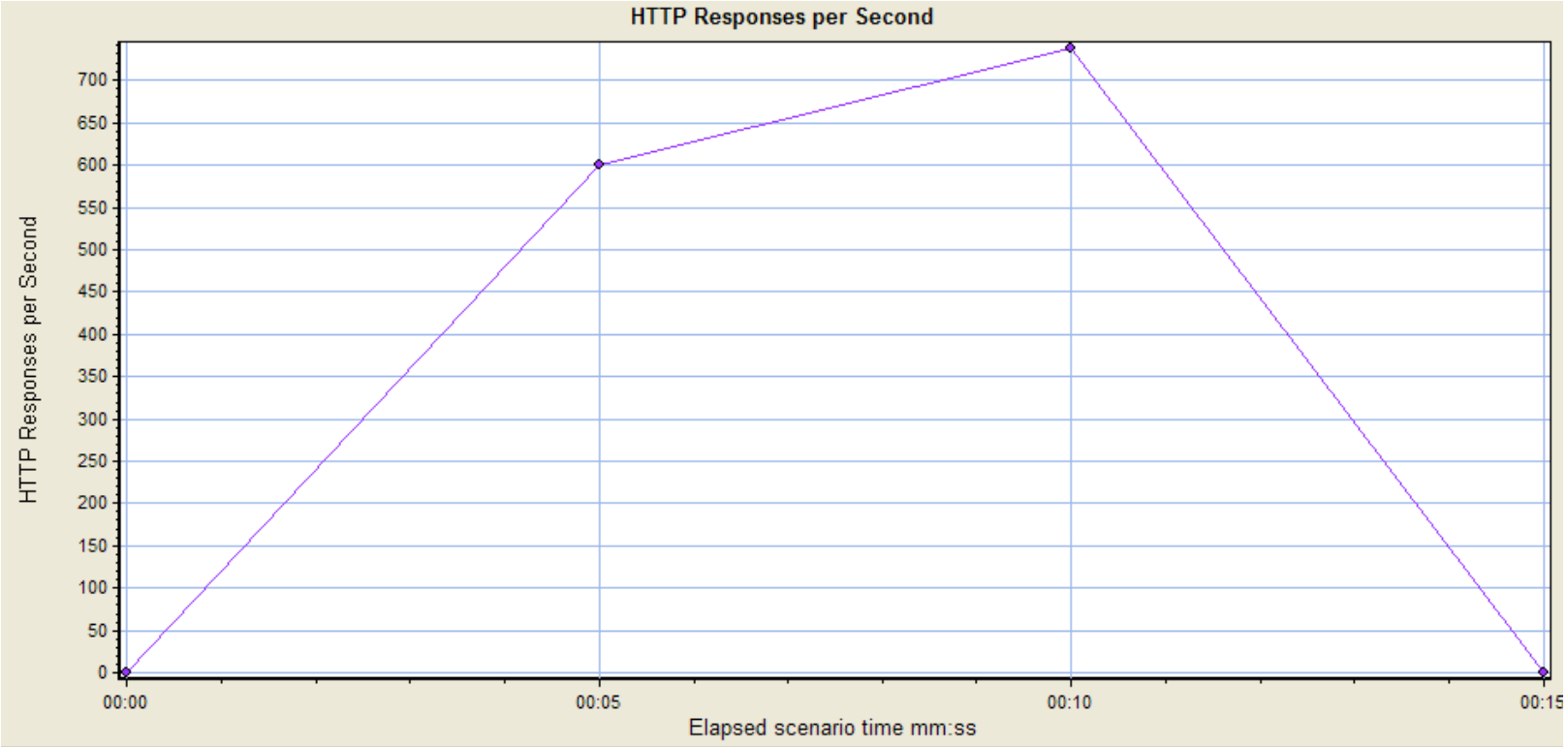
## (4)TPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Pass | 0 | 13.118 | 55 | 2 | 17.439 |

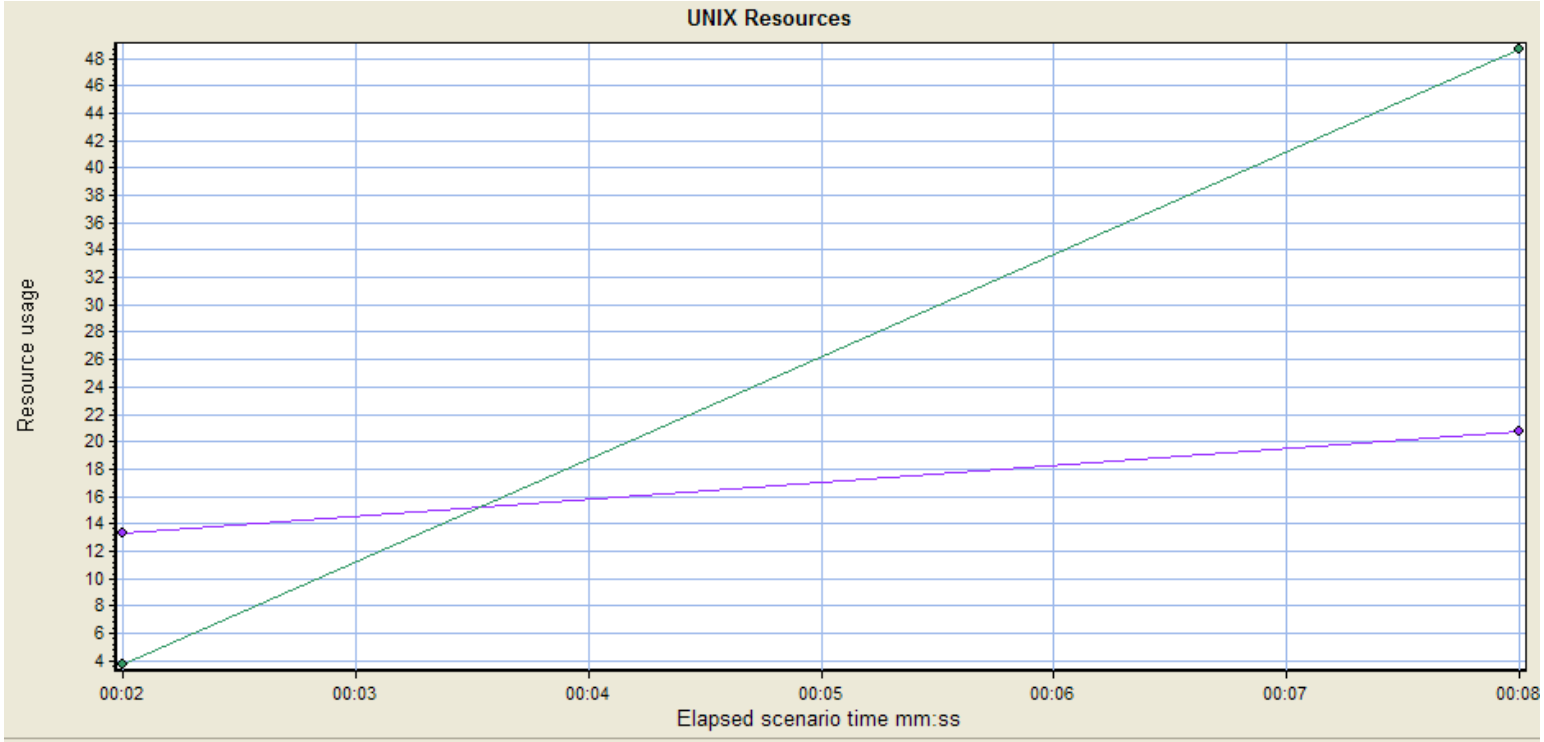
## (5)RPS




Legend

| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 393.529 | 738 | 600 | 338.04 |

## (6)UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 37.333 | 262 | 486.667 | 224.667 |
| | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 13.331 | 17.059 | 20.786 | 3.727 |

(3)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90% 事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 220 | 1.146 | 10.691 | 11.389 | 52,826,470 | 0 | 393.529 | 738 | 0 | 13.118 | 55 | 0 | 393.529 | 738 | 13.331,17.059,20.786 | 37.333,262,486.667 |

### 5.3.7.2 并发 240 虚拟用户

(1)整体概述

## Statistics Summary

| | | |
|---|---|---|
| Maximum Running Vusers: | | 240 |
| Total Throughput (bytes): | | 57,180,346 |
| Average Throughput (bytes/second): | | 3,363,550 |
| Total Hits: | | 7,258 |
| Average Hits per Second: | | 426.941 |
| Total Errors: | | 4 |

View HTTP Responses Summary

You can define SLA data using the SLA configuration wizard

You can analyze transaction behavior using the Analyze Transaction mechanism

## Scenario Behavior Over Time

The SLA status of the following measurements displayed over time. You can select a specific time range for each transaction in order to analyze the time range.

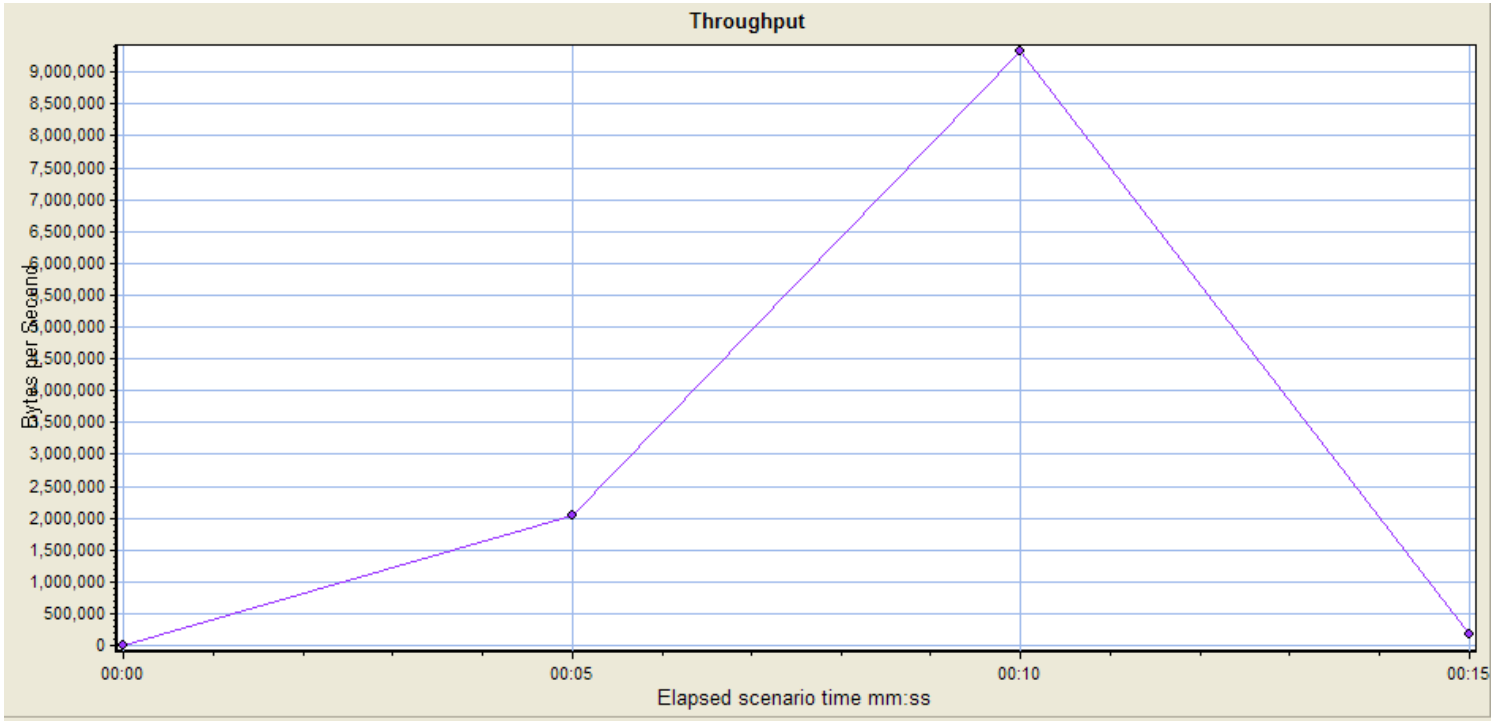
| Measurement Name | Time Ranges | | | |
|---|---|---|---|---|
| Application Under Test Errors | 0 | 0.8 | 0 | 0 |
| | 00:00:00 | 00:00:05 | 00:00:10 | 00:00:15 |

## Transaction Summary

Transactions: Total Passed: 721 Total Failed: 4 Total Stopped: 0 Average Response Time

| Transaction Name | SLA Status | Minimum | Average | Maximum | Std. Deviation | 90 Percent | Pass | Fail | Stop |
|---|---|---|---|---|---|---|---|---|---|
| Action_Transaction | | 0.894 | 6.872 | 11.37 | 2.655 | 10.726 | 241 | 4 | 0 |
| vuser_end_Transaction | | 0 | 0 | 0 | 0 | 0 | 240 | 0 | 0 |
| vuser_init_Transaction | | 0 | 0 | 0.001 | 0 | 0.001 | 240 | 0 | 0 |

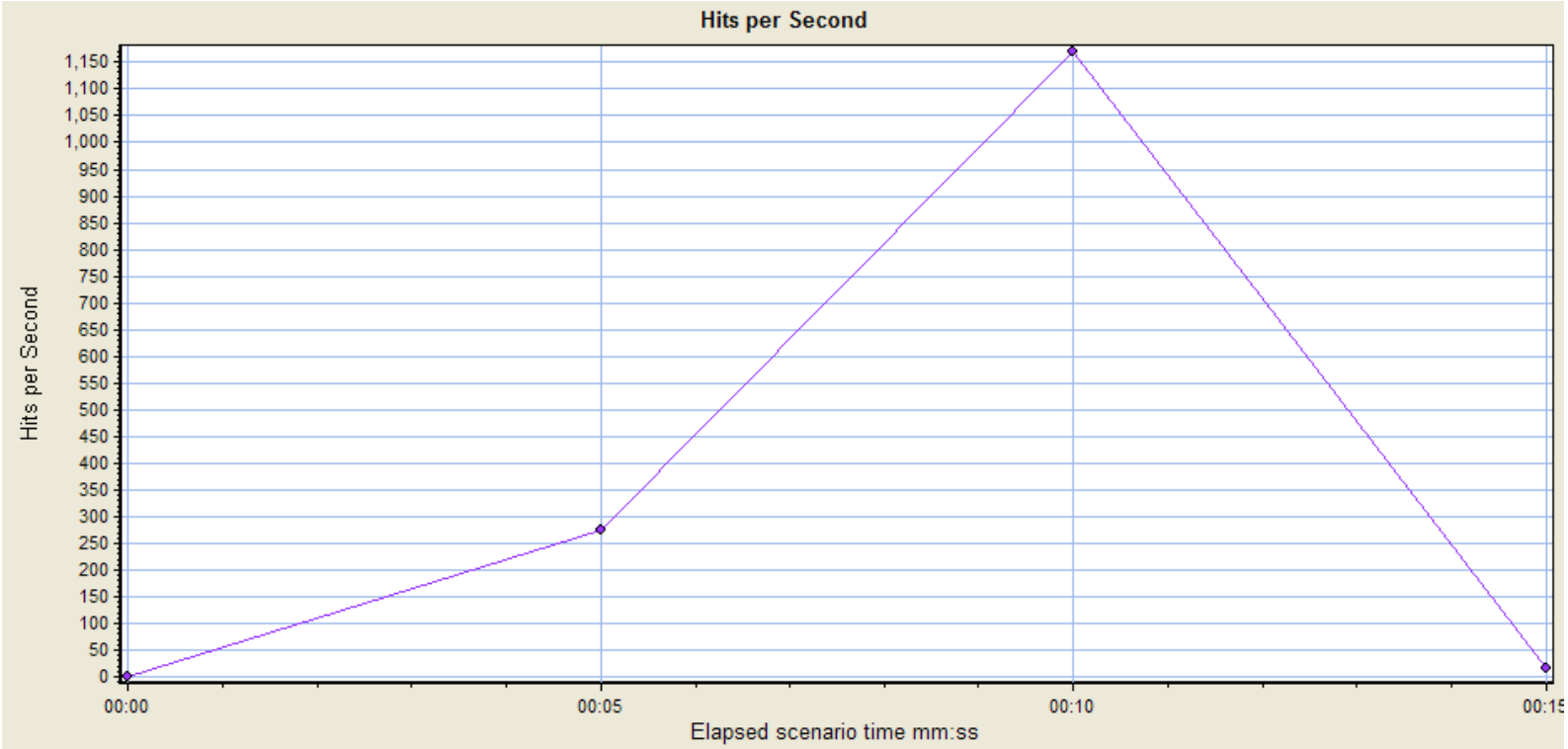
(2)吞吐量




Legend

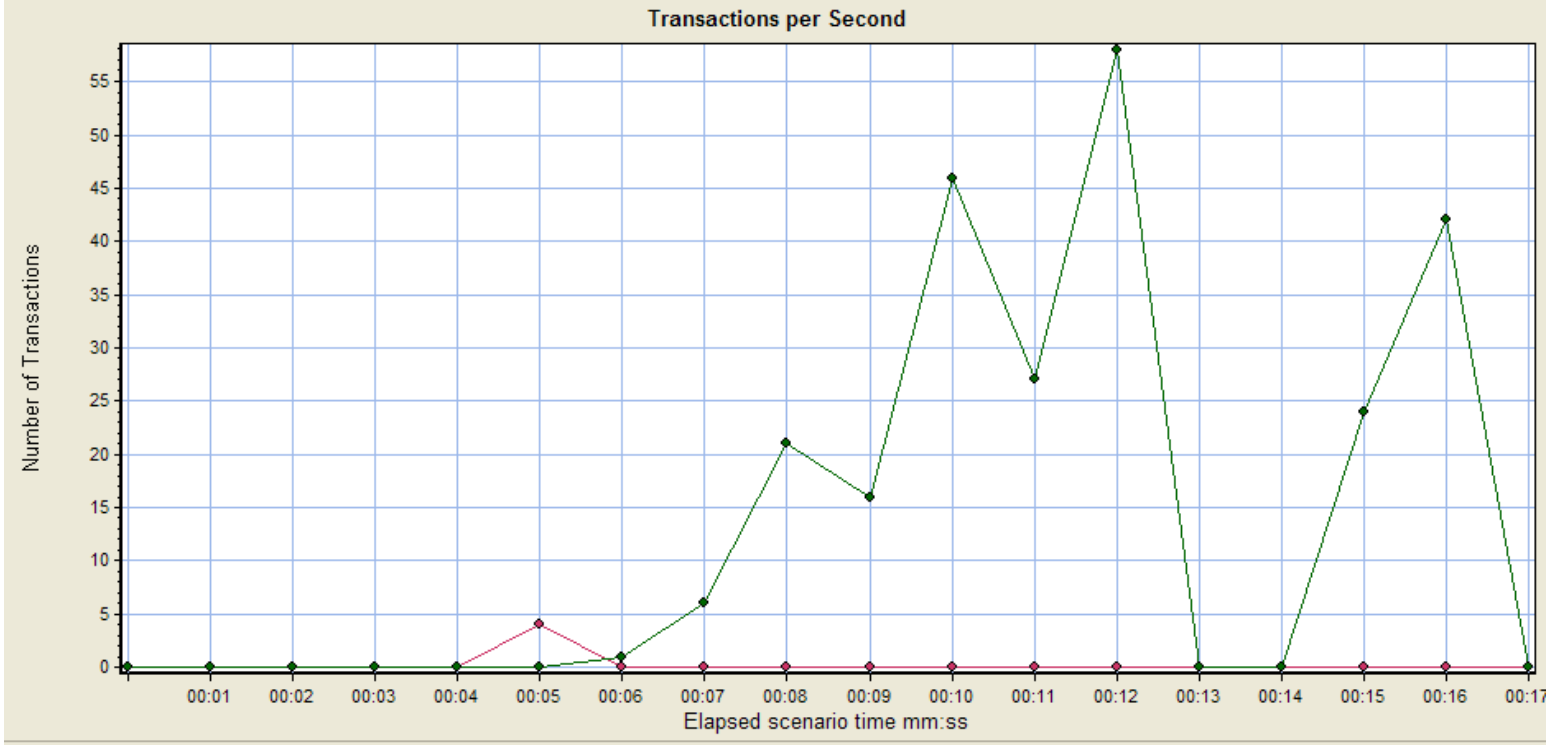
| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Throughput | 0 | 3363549.765 | 9328830 | 2041746.8 | 3806656.765 |

（3）点击率




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Hits | 0 | 426.941 | 1170 | 275.6 | 477.426 |

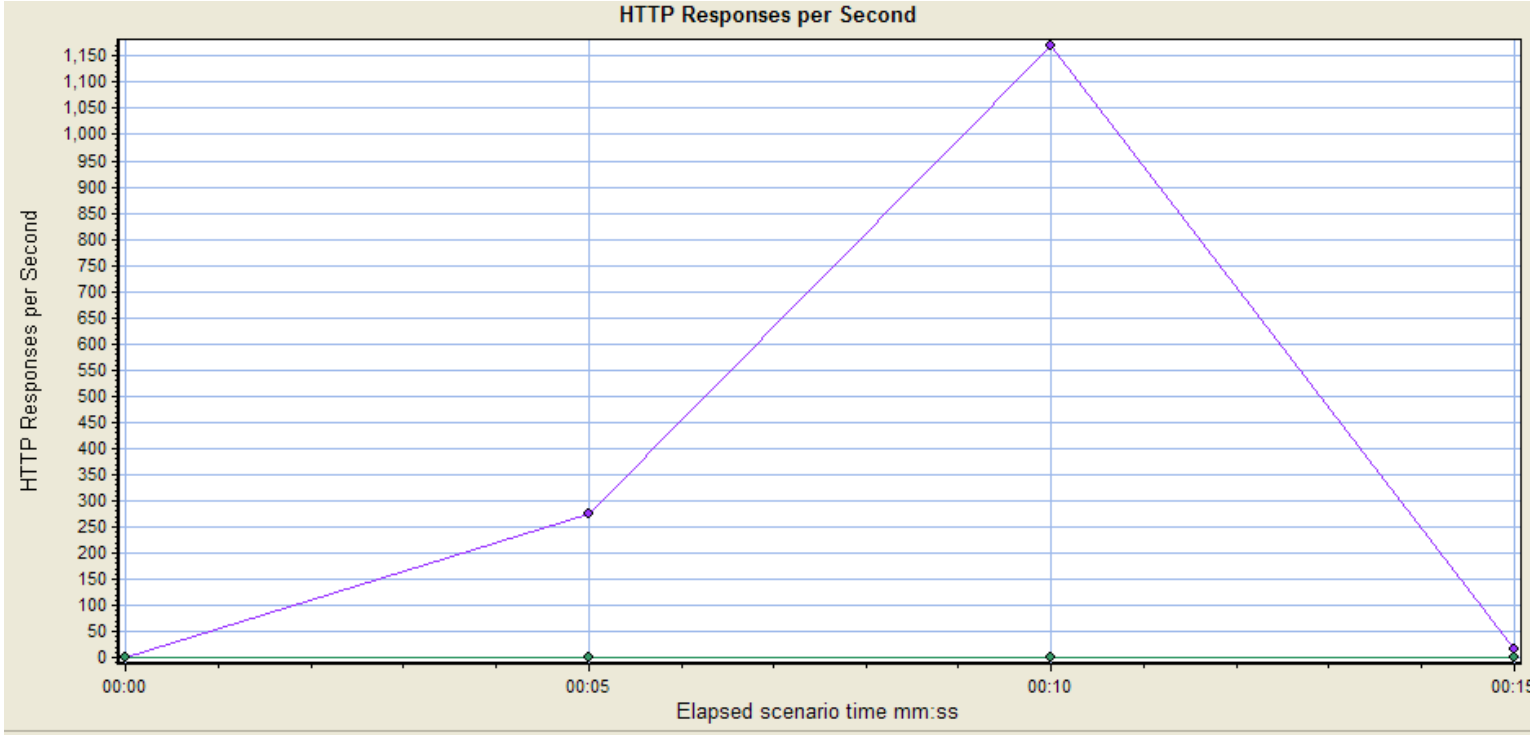
（4）TPS




Legend

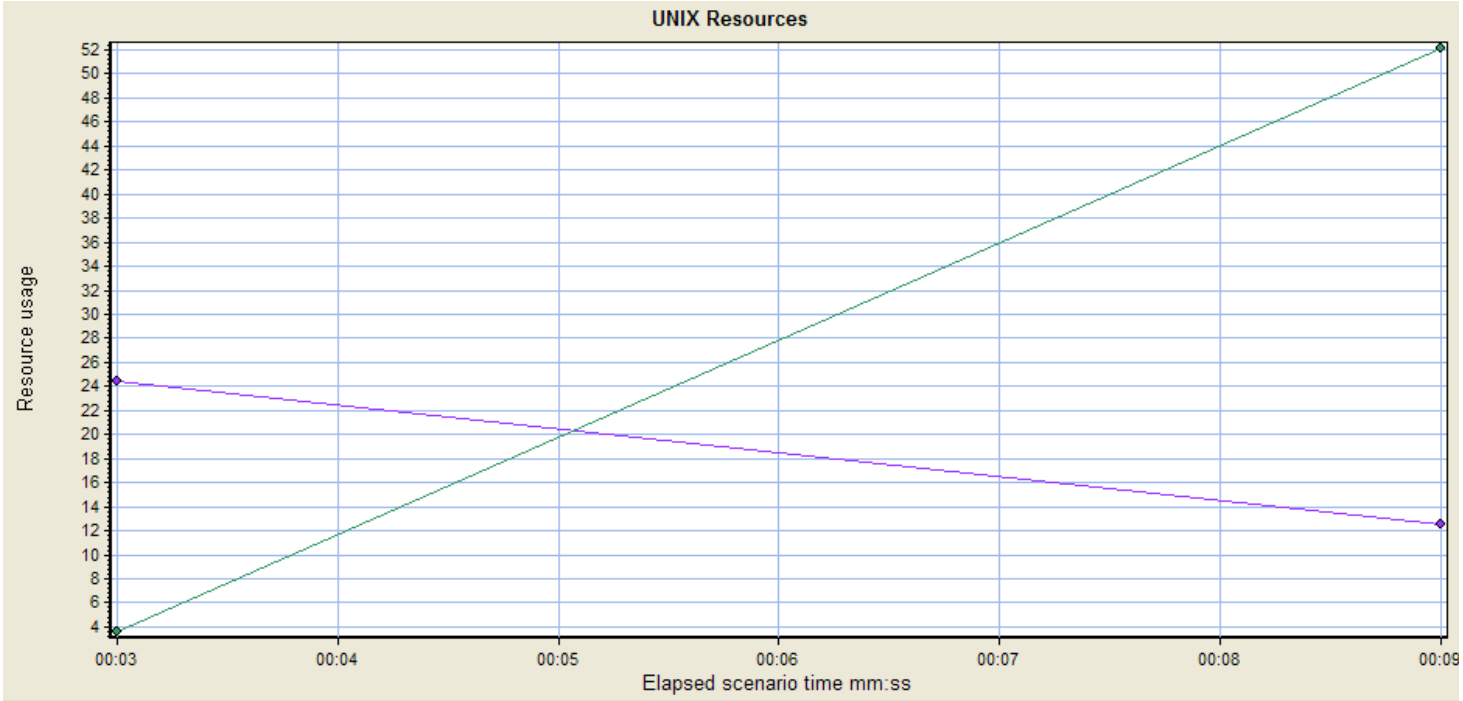
| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | Action_Transaction:Fail | 0 | 0.235 | 4 | 0 | 0.916 |
| ☑ | 1 | Action_Transaction:Pass | 0 | 14.176 | 58 | 1 | 18.343 |

## (5)RPS




| Color | Scale | Measurement | Graph Minimum | Average | Graph Maximum | Graph Median | Graph Std. Deviation |
|---|---|---|---|---|---|---|---|
| ☑ | 1 | HTTP_200 | 0 | 426.706 | 1170 | 274.8 | 477.464 |
| ☑ | 1 | HTTP_404 | 0 | 0.235 | 0.8 | 0 | 0.346 |

## (6)UNIX 系统资源




Legend

| Color | Scale | Measurement | Minimum | Average | Maximum | Std. Deviation |
|---|---|---|---|---|---|---|
| | 0.1 | Paging rate (Unix Kernel Statistics):172.31.200.12 | 36 | 278.667 | 521.333 | 242.667 |
| | 1 | CPU Utilization (Unix Kernel Statistics):172.31.200.12 | 12.534 | 18.512 | 24.49 | 5.978 |

(7 列表

| 并发数 | 事物响应时间(s) | | | 吞吐量（Bytes） | 点击率（Hits per Seconds） | | | TPS (Transactions per Seconds) | | | RPS (Responses per Seconds) | | | Unix 系统资源 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 最小 | 90% 事务 | 最大 | | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | 最小 | 平均 | 最大 | CPU Utilization（%）(min->aver->max) | Paging Rate（0.1）(min->aver->max) |
| 220 | 1.146 | 10.691 | 11.389 | 52,826,470 | 0 | 393.529 | 738 | 0 | 13.118 | 55 | 0 | 393.529 | 738 | 13.331,17.059,20.786 | 37.333,262,486.667 |
| 240 | 0.894 | 10.726 | 11.37 | 57,180,346 | 0 | 426.941 | 1170 | 0 | 14.176 | 58 | 0 | 426.706 | 1170 | 12.534,18.512,24.49 | 36,278.667,521.333 |

## 小结

在运行 240 虚拟用户进行访问时，LR 上报错是 http Stutas-code=404；服务器端日志错误为：

2013/01/15 11:56:27 [error] 14665#0: *1910 connect() to unix:ar/run/phpfpm.sock failed (11: Resour

ce temporarily unavailable) while connecting to upstream, client: 172.31.143.66, server: , request : "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

2013/01/15 11:56:27 [error] 14665#0: *1910 open() "/usrinxml/50x.html" failed (2: No such file or directory), client: 172.31.143.66, server: , request: "GET / HTTP/1.1", upstream: "fastcgi://unix:ar/run/phpfpm.sock:", host: "172.31.200.12"

结合以上，此时 CPU 最高使用 24.49%，Paging Rate 最高为 521.333 * 0.1=52.1,吞吐量最大为：57,180,346Bytes 且随着虚拟数量增大成上升趋势，否定网络堵塞等情况，均未达到服务器端极限，由此可以确定在当前服务器端配置下，专题详情页该单台所能承受的并发最好情况为 220.