南京广电 EPG
性能测试报告

参考文档 ：	无
版　　本 ：	1.0
日　　期 ：	2012-12-26
状　　态:	

项目名称 ：	EPG
项目编号 ：	
题目:	性能测试报告

	名字
作者 ：	赵一娥、魏林
技术控制:	产品经理 测试部经理 张伟 项目经理
测试工程师 ：	

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编号	版本	内容	修改人	时间
1	V0.1	性能测试		2012-12-26

目 录

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

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3 专业术语

无

4 测试时间和投入人力

1）测试时间

2012-12-18 至 2012-12-28 总共 7 工作日。

2）投入人力

测试工程师 2 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。

(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`

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(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 300 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 300

Total Throughput (bytes): 163,263,739

Average Throughput (bytes/second): 4,664,678

Total Hits: 17,100

Average Hits per Second: 488.571   **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	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35

Transaction Summary

Transactions: Total Passed: 900 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		2.212	15.716	27.726	4.081	19.758	300	0	0
vuser_end_Transaction		0	0	0	0	0	300	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	300	0	0

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(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	2.212	19.758	27.726	163,263,739

5.3.1.2 并发 500 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 500

Total Throughput (bytes): 272,105,923

Average Throughput (bytes/second): 4,535,099

Total Hits: 28,500

Average Hits per Second: 475　　　　**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	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00

Transaction Summary

Transactions: Total Passed: 1,500 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		2.642	24.32	48.827	4.836	30.759	500	0	0
vuser_end_Transaction		0	0	0	0	0	500	0	0
vuser_init_Transaction		0	0	0.004	0	0.004	500	0	0

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(2)吞吐量

(3)列表

并发数	事物影应时间(s)			吞吐量
	最小	90%事务	最大	(Bytes)
300	2.212	19.758	27.726	163,263,739
500	2.642	30.759	48.827	272,105,923

5.3.1.3 并发 600 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 600

Total Throughput (bytes):   332,780,295

Average Throughput (bytes/second):   4,687,046

Total Hits: 34,649

Average Hits per Second: 488.014   **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.

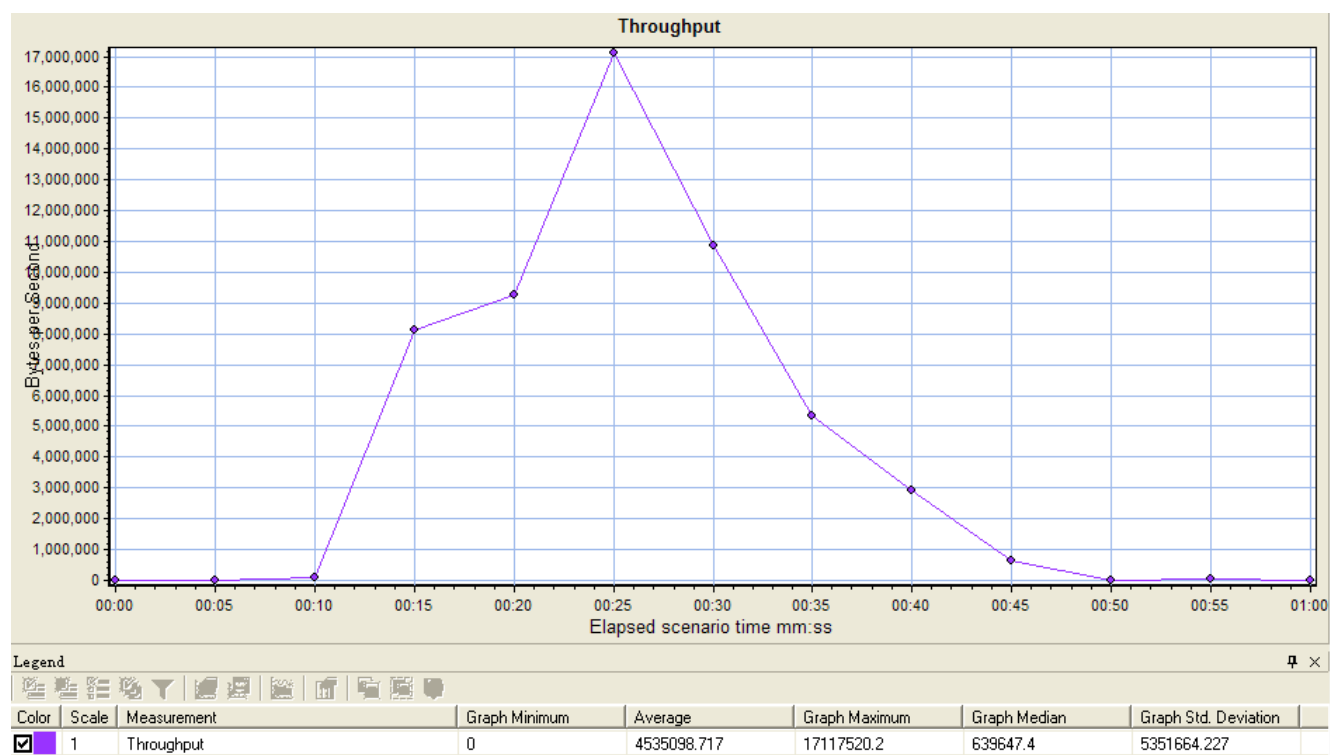| Measurement Name	Time Ranges														
Application Under Test Errors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00	00:01:05	00:01:10

Transaction Summary

Transactions: Total Passed: 1,808 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		0.938	29.67	57.38	8.437	37.097	608	0	0
vuser_end_Transaction		0	0	0	0	0	600	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	600	0	0

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation
☑	1	Throughput	0	4687046.408	15076883	1235412.4	4937075.12

(3)列表

并发数	事物影应时间(s)			吞吐量（Bytes）
	最小	90%事务	最大	
300	2.212	19.758	27.726	163,263,739
500	2.642	30.759	48.827	272,105,923
600	0.938	37.097	57.38	332,780,295

5.3.1.4 并发 700 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 700

Total Throughput (bytes): 322,498,207

Average Throughput (bytes/second): 4,607,117

Total Hits: 33,847

Average Hits per Second: 483.529   **View HTTP Responses Summary**

Total Errors: 95

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	0	0	19	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00	00:01:05	00:01:10

Transaction Summary

Transactions: Total Passed: 2,005 Total Failed: 95 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction		2.573	29.147	54.281	6.343	35.527	605	95	0
vuser_end_Transaction		0	0	0	0	0	700	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	700	0	0

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(2)吞吐量

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(3)列表

并发数	事物影应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	2.212	19.758	27.726	163,263,739
500	2.642	30.759	48.827	272,105,923
600	0.938	37.097	57.38	332,780,295
700	2.537	35.527	54.281	322,498,207

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5.3.2 导航页

5.3.2.1 并发 300 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		300
Total Throughput (bytes):		101,989,032
Average Throughput (bytes/second):		3,090,577
Total Hits:		12,492
Average Hits per Second:		378.545

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	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30

Transaction Summary

Transactions: Total Passed: 900 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		3.444	19.773	25.71	5.363	24.503	300	0	0
vuser_end_Transaction		0	0	0	0	0	300	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	300	0	0

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation	
☑	1	Throughput	0	3090576.727	9980933.333	2245158.4	3402063.954	

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	3.444	24.503	25.71	101,989,032

5.3.2.1 并发 500 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 500
Total Throughput (bytes):   176,251,837
Average Throughput (bytes/second):   3,092,137
Total Hits: 21,347
Average Hits per Second: 374.509   **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.

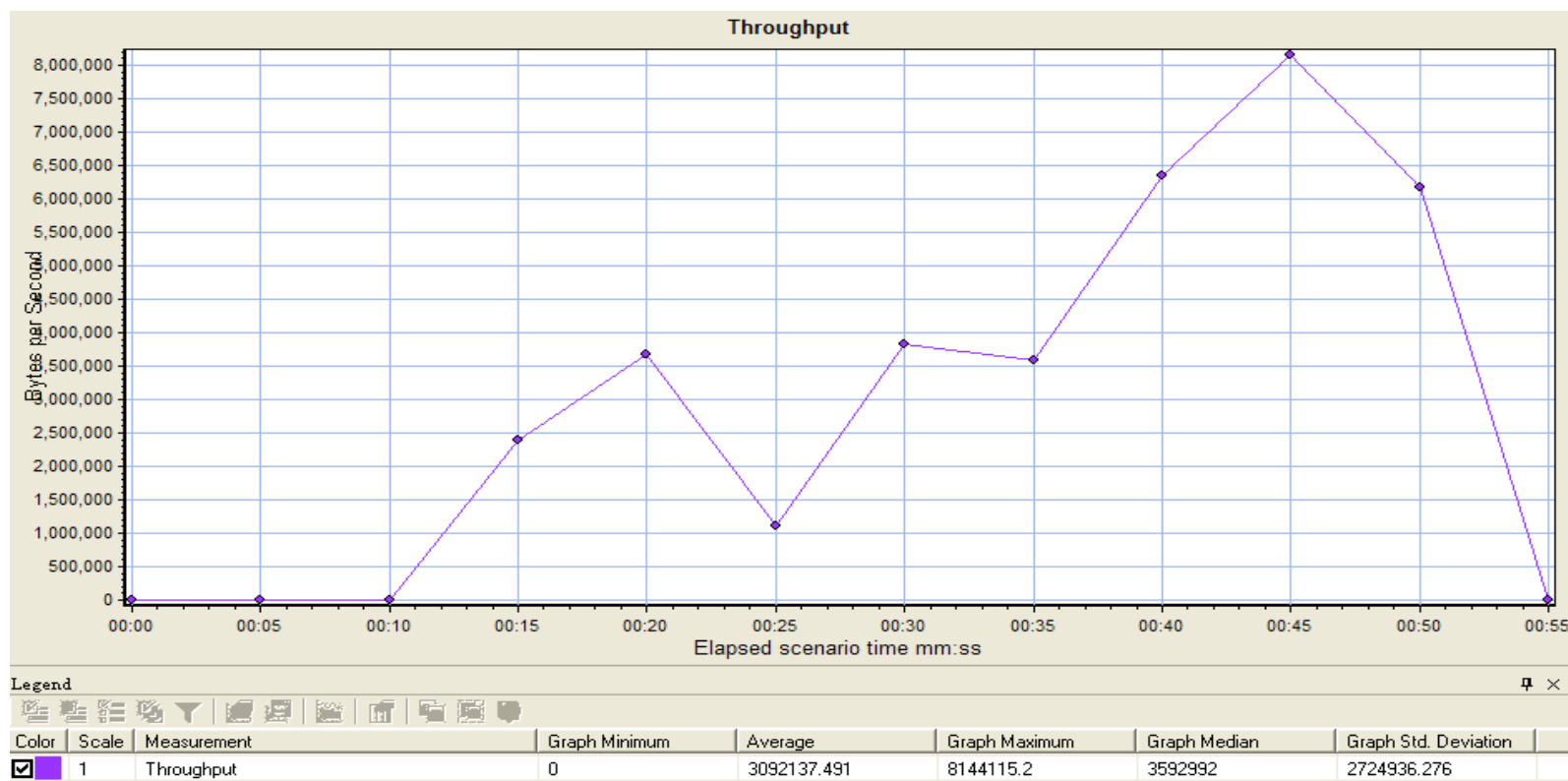| Measurement Name	Time Ranges											
Application Under Test Errors	0	0	0	0	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55

Transaction Summary

Transactions: Total Passed: 1,500 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		3.892	31.104	44.754	7.85	39.231	500	0	0
vuser_end_Transaction		0	0	0	0	0	500	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	500	0	0

(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation
☑ ▉	1	Throughput	0	3092137.491	8144115.2	3592992	2724936.276

(3)列表

并发数	事物响应时间(s)			吞吐量（Bytes）
	最小	90%事务	最大	
300	3.444	24.503	25.71	101,989,032
500	3.892	39.231	44.754	176,251,837

5.3.2.1 并发 600 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 600

Total Throughput (bytes): 209,781,675

Average Throughput (bytes/second): 3,131,070

Total Hits: 25,467

Average Hits per Second: 380.104   View HTTP Responses Summary

Total Errors: 3

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	0.2	0.2	0	0.2	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00	00:01:05

Transaction Summary

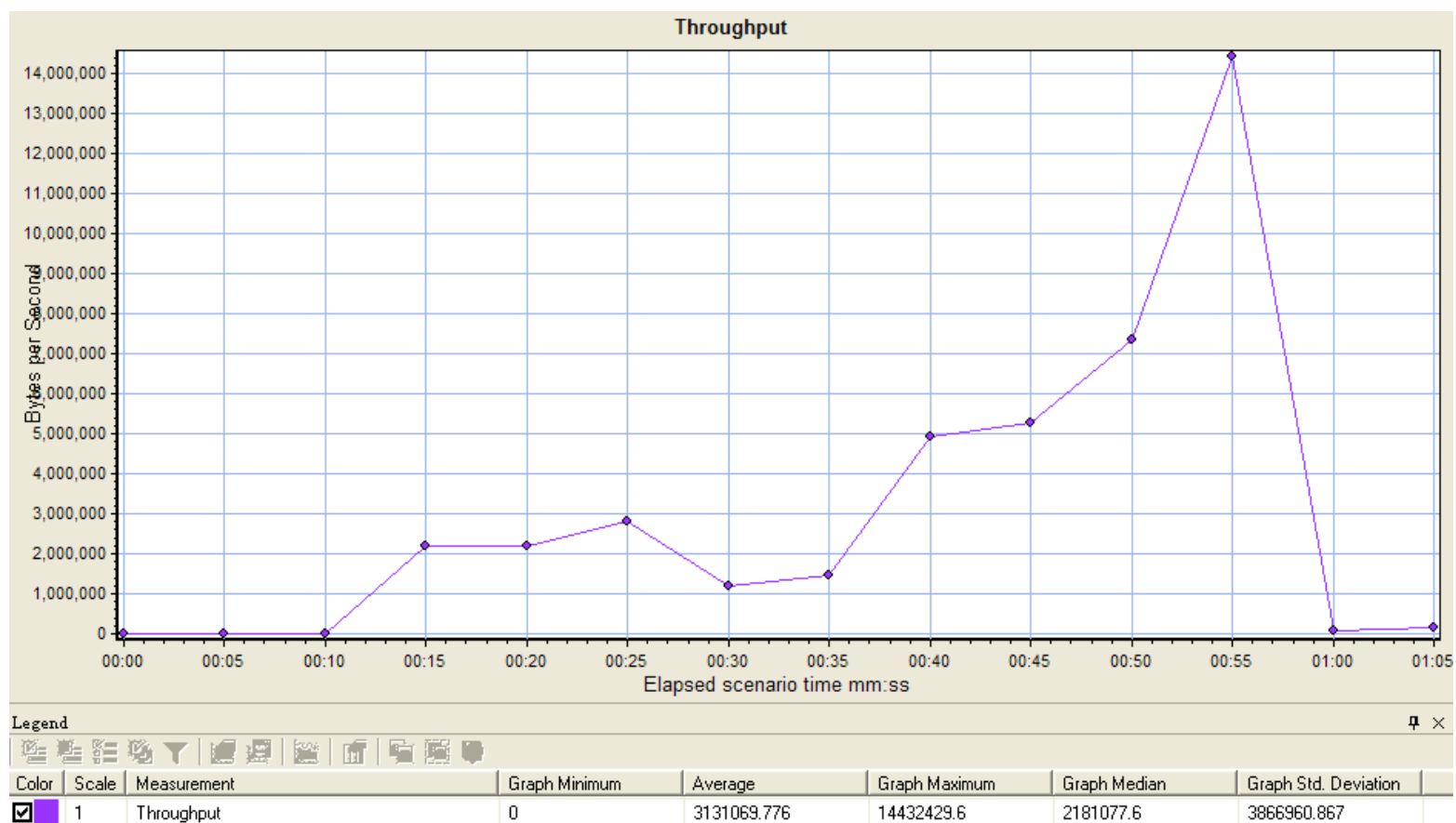**Transactions:** Total Passed: 1,797 Total Failed: 3 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction		3.854	37.207	53.073	8.837	45.568	597	3	0
vuser_end_Transaction		0	0	0	0	0	600	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	600	0	0

(2)吞吐量

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	3.444	24.503	25.71	101,989,032
500	3.892	39.231	44.754	176,251,837
600	3.854	45.568	53.073	209,781,675

5.3.2.1 并发 800 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		800
Total Throughput (bytes):		268,075,118
Average Throughput (bytes/second):		3,309,569
Total Hits:		32,938
Average Hits per Second:		406.642 **View HTTP Responses Summary**
Total Errors:		51

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	0	0	9.8	0	0	0	0.4	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00	00:01:05	00:01:10	00:01:15	00:01:20

Transaction Summary

Transactions: Total Passed: 2,349 Total Failed: 51 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction		3.62	43.142	63.827	11.863	55.547	749	51	0
vuser_end_Transaction		0	0	0	0	0	800	0	0
vuser_init_Transaction		0	0	0.004	0	0.004	800	0	0

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(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量（Bytes）
	最小	90%事务	最大	
300	3.444	24.503	25.71	101,989,032
500	3.892	39.231	44.754	176,251,837
600	3.854	45.568	53.073	209,781,675
800	3.62	55.547	63.827	268,075,118

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5.3.3 影片库

5.3.3.1 并发 300 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		300
Total Throughput (bytes):	🔍	59,923,200
Average Throughput (bytes/second):	🔍	2,605,357
Total Hits:	🔍	10,800
Average Hits per Second:	🔍	469.565 **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.

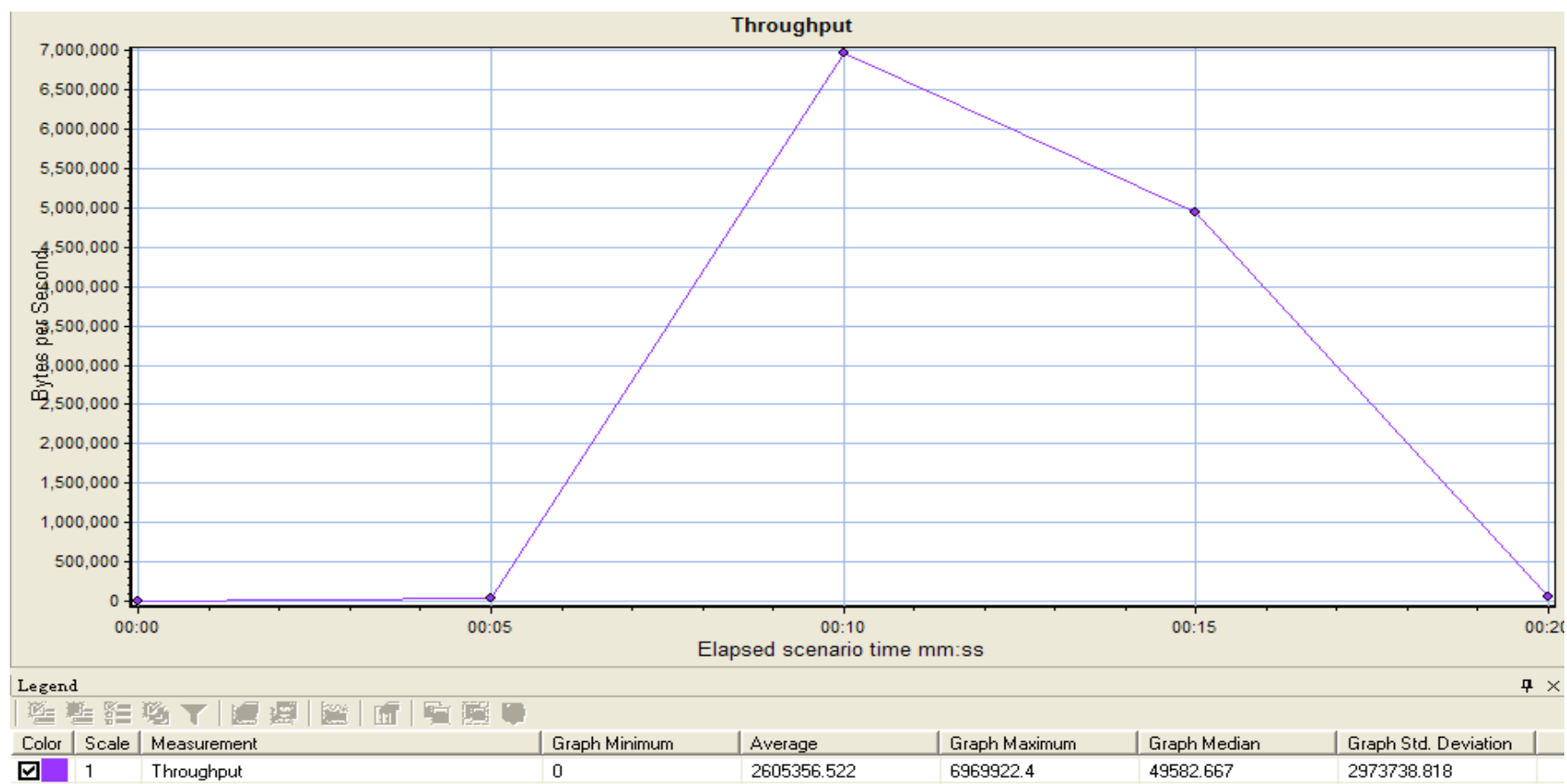| Measurement Name	Time Ranges				
Application Under Test Errors	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20

Transaction Summary

Transactions: Total Passed: 900 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	🔍	2.334	9.535	14.994	1.912	11.178	300	0	0
vuser_end_Transaction	🔍	0	0	0.005	0	0.005	300	0	0
vuser_init_Transaction	🔍	0	0	0.002	0	0.002	300	0	0

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(2)吞吐量

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	2.334	11.178	14.994	59,923,200

5.3.3.1 并发 500 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		500
Total Throughput (bytes):		100,071,744
Average Throughput (bytes/second):		2,943,287
Total Hits:		18,036
Average Hits per Second:		530.471	**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.

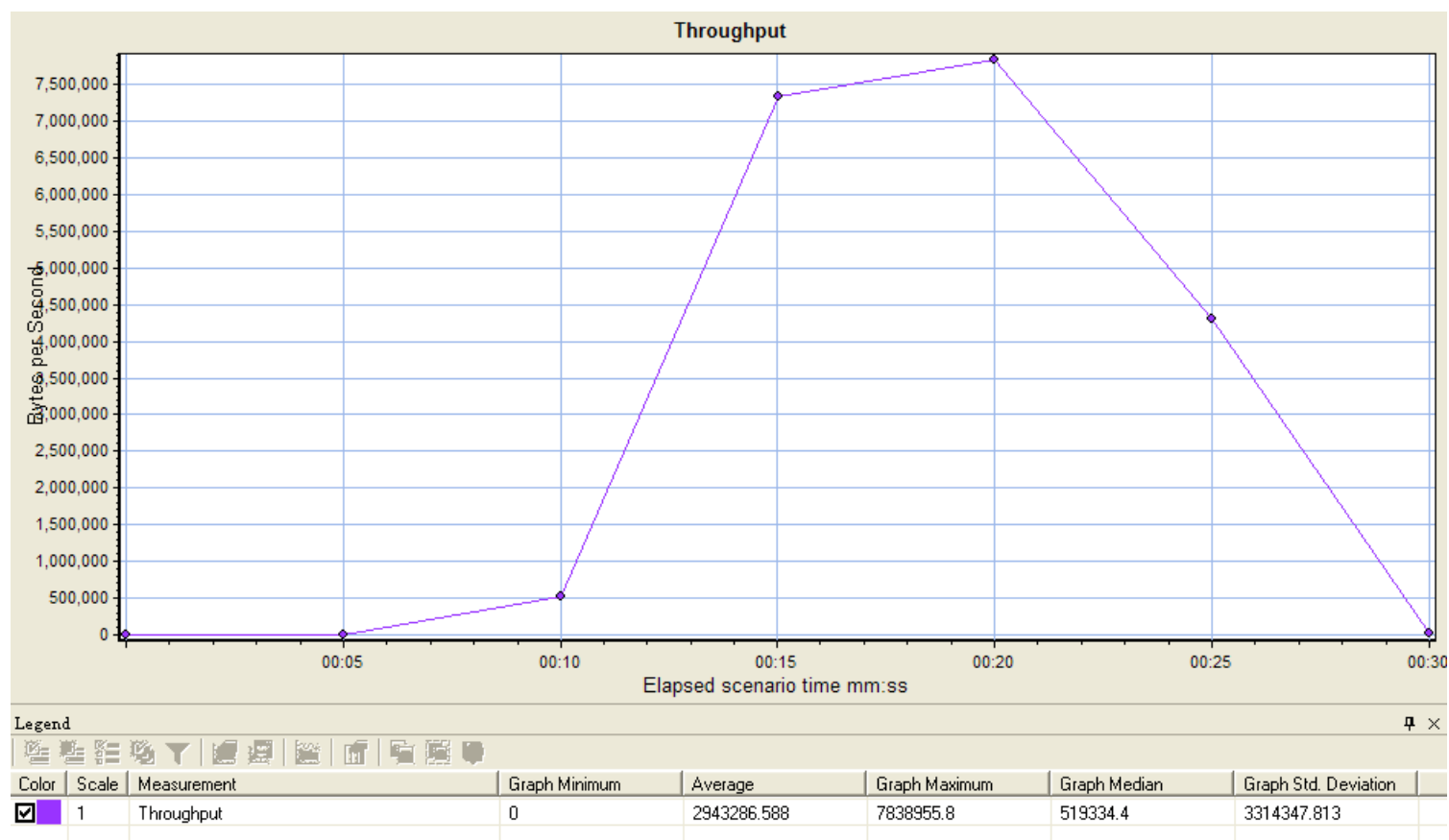| Measurement Name	Time Ranges						
Application Under Test Errors	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30

Transaction Summary

Transactions: Total Passed: 1,501 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		1.953	12.042	23.023	4.438	17.117	501	0	0
vuser_end_Transaction		0	0	0	0	0	500	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	500	0	0

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(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	2.334	11.178	14.994	59,923,200
500	1.953	17.117	23.023	100,071,744

5.3.3.1 并发 600 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:	600
Total Throughput (bytes):	119,683,406
Average Throughput (bytes/second):	2,720,077
Total Hits:	21,575
Average Hits per Second:	490.341 **View HTTP Responses Summary**
Total Errors:	1

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	0.2	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40

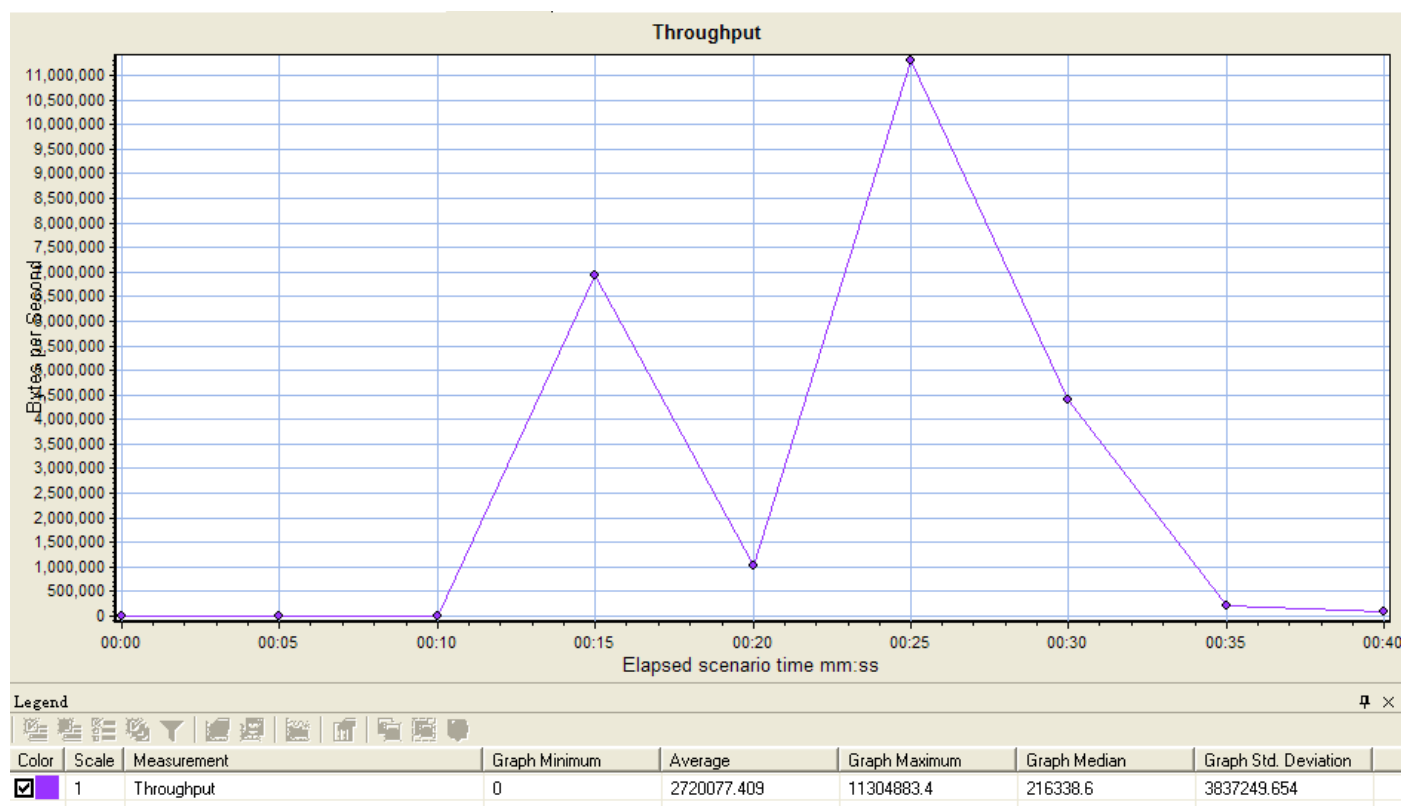## Transaction Summary

Transactions: Total Passed: 1,799 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		2.532	15.176	30.622	6.316	21.548	599	1	0
vuser_end_Transaction		0	0	0	0	0	600	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	600	0	0

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation	
☑ ■	1	Throughput	0	2720077.409	11304883.4	216338.6	3837249.654	

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	2.334	11.178	14.994	59,923,200
500	1.953	17.117	23.023	100,071,744
600	2.532	21.548	30.622	119,683,406

5.3.4 频道列表

5.3.4.1 并发 500 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:	500
Total Throughput (bytes):	32,469,656
Average Throughput (bytes/second):	1,298,786
Total Hits:	11,066
Average Hits per Second:	442.64

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 e to analyze the time range.

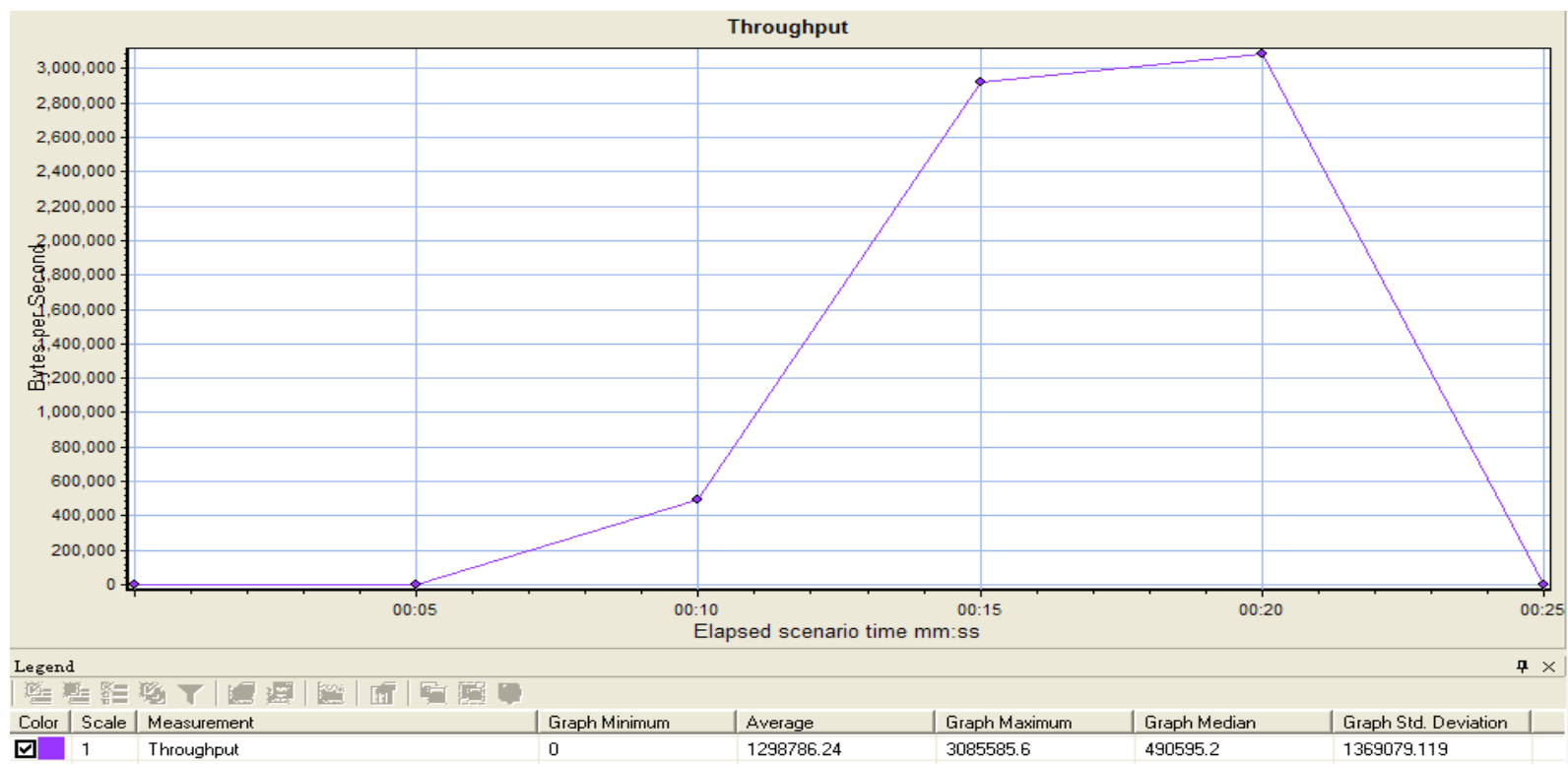| Measurement Name	Time Ranges					
Application Under Test Errors	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25

Transaction Summary

Transactions: Total Passed: 1,503 Total Failed: 0 Total Stopped: 0   Average Response Time

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Perc
Action_Transaction		1.868	7.81	13.901	3.099	11.199
vuser_end_Transaction		0	0	0	0	0
vuser_init_Transaction		0	0	0.006	0.001	0.006

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation
☑	1	Throughput	0	1298786.24	3085585.6	490595.2	1369079.119

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.868	11.199	13.901	32,469,656

5.3.4.1 并发 800 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		800
Total Throughput (bytes):		51,641,600
Average Throughput (bytes/second):		1,122,643
Total Hits:		17,600
Average Hits per Second:		382.609

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.

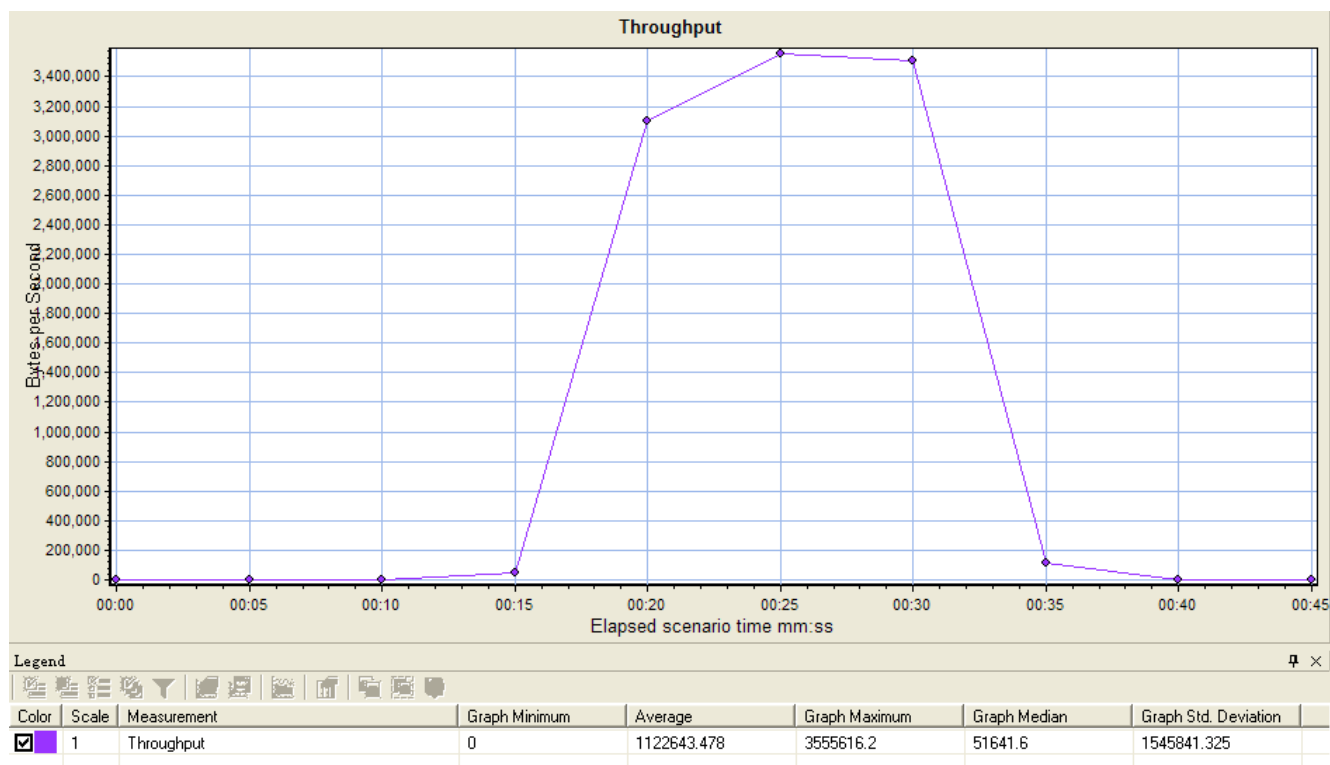| Measurement Name	Time Ranges									
Application Under Test Errors	0	0	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45

Transaction Summary

Transactions: Total Passed: 2,400 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		2.406	12.164	27.849	4.647	17.705	800	0	0
vuser_end_Transaction		0	0	0	0	0	800	0	0

(2)吞吐量

(3)列表

| 并发数 | 事物响应时间(s) | | | 吞吐量 |
	最小	90%事务	最大	（Bytes）
500	1.868	11.199	13.901	32,469,656
800	2.406	17.705	27.849	51,641,600

5.3.4.1 并发 1000 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		1,000
Total Throughput (bytes):		64,810,208
Average Throughput (bytes/second):		1,222,834
Total Hits:		22,088
Average Hits per Second:		416.755

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.

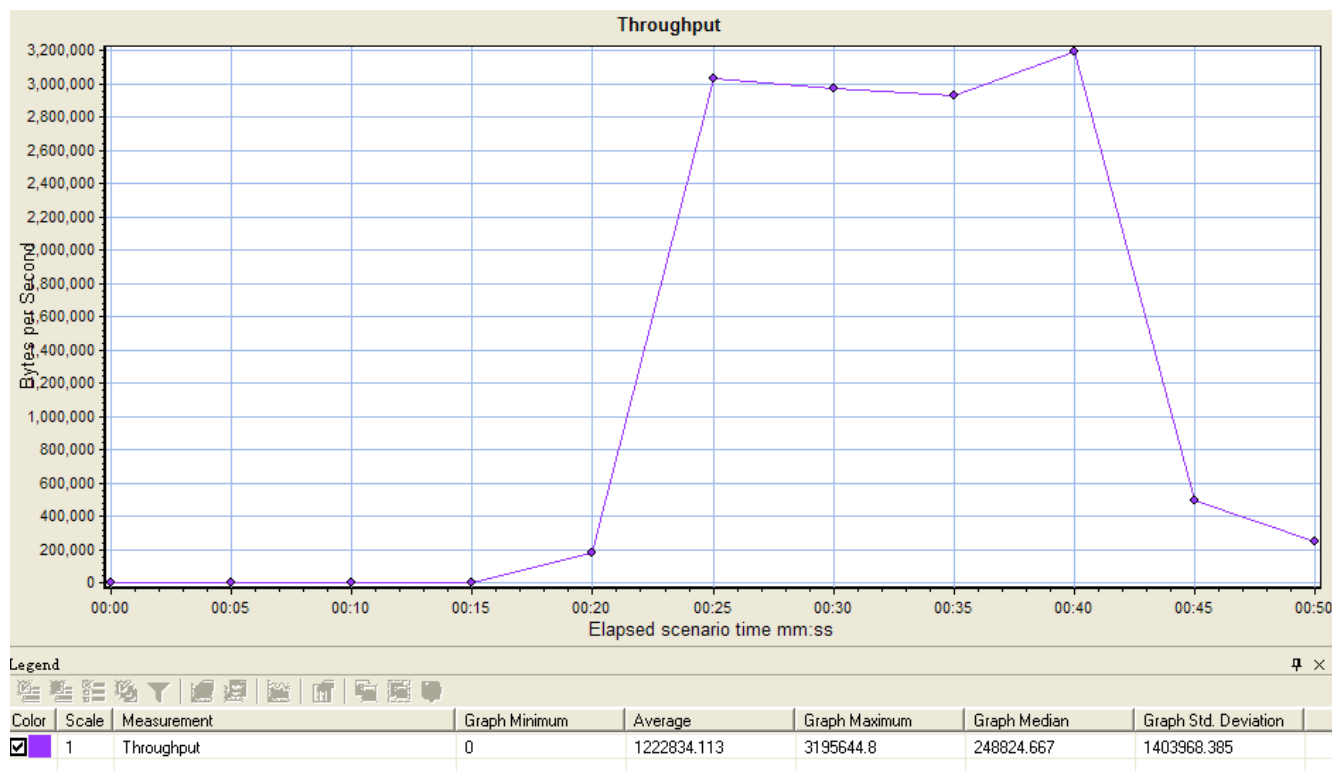| Measurement Name	Time Ranges										
Application Under Test Errors	0	0	0	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50

Transaction Summary

Transactions: Total Passed: 3,004 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		1.815	15.673	30.224	7.859	25.657	1,004	0	0
vuser_end_Transaction		0	0	0	0	0	1,000	0	0
vuser_init_Transaction		0	0	0.004	0	0.004	1,000	0	0

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation	
☑	1	Throughput	0	1222834.113	3195644.8	248824.667	1403968.385	

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.868	11.199	13.901	32,469,656
800	2.406	17.705	27.849	51,641,600
1000	1.815	25.657	30.244	64,810,208

5.3.4.1 并发 1200 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		1,200
Total Throughput (bytes):		74,456,040
Average Throughput (bytes/second):		1,200,904
Total Hits:		25,542
Average Hits per Second:		411.968
Total Errors:		77

Average Hits per Second — **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.

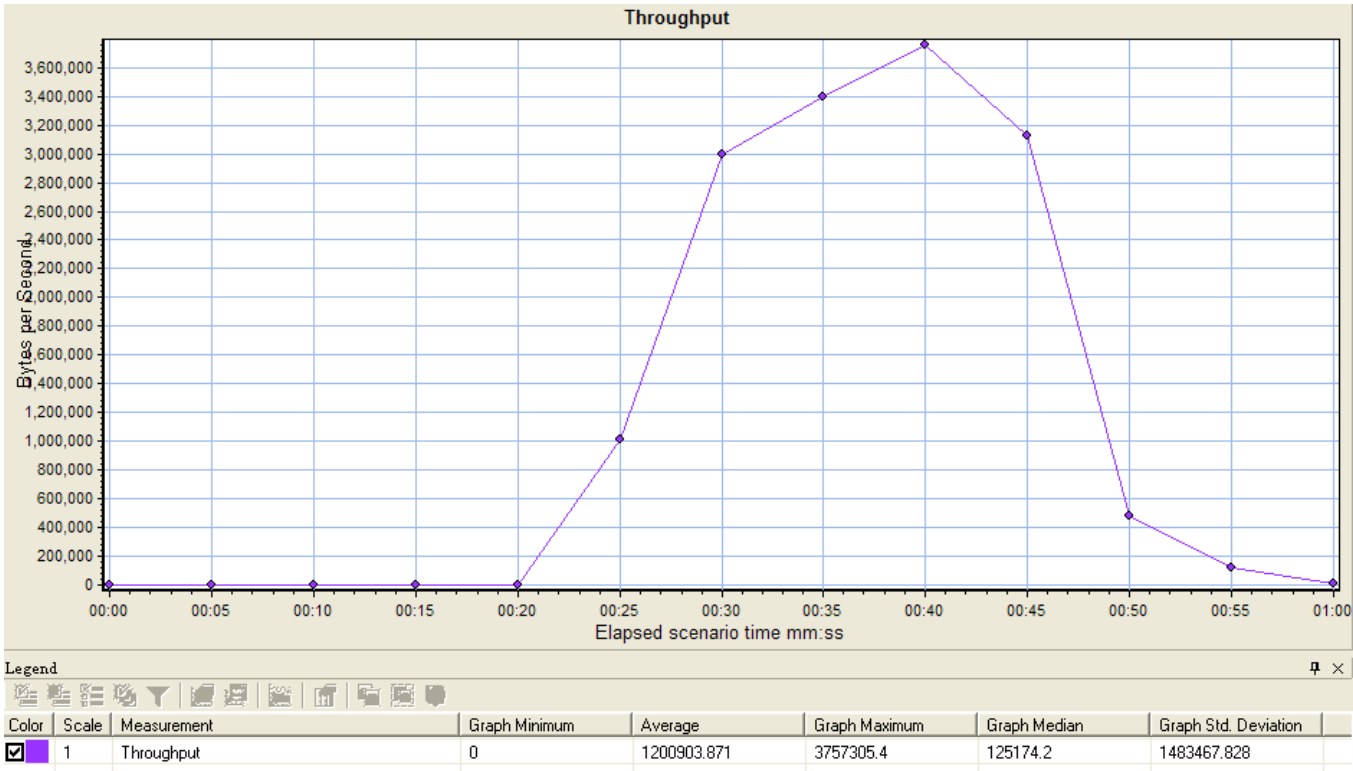| Measurement Name	Time Ranges												
Application Under Test Errors	0	0	0	0	0	0	5.2	6.8	3	0.2	0.2	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00

Transaction Summary

Transactions: Total Passed: 3,523 Total Failed: 77 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction		2.215	18.109	35.728	8.32	29.406	1,123	77	0
vuser_end_Transaction		0	0	0	0	0	1,200	0	0
vuser_init_Transaction		0	0	0.005	0	0.005	1,200	0	0

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation
☑	1	Throughput	0	1200903.871	3757305.4	125174.2	1483467.828

(3)列表

并发数	事物响应时间(s)			吞吐量（Bytes）
	最小	90%事务	最大	
500	1.868	11.199	13.901	32,469,656
800	2.406	17.705	27.849	51,641,600
1000	1.815	25.657	30.244	64,810,208
1200	2.215	29.406	35.728	74,456,040

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5.3.5 搜索

5.3.5.1 并发 300 虚拟用户

(1)事物响应时间

Maximum Running Vusers:	300	
Total Throughput (bytes):		33,365,869
Average Throughput (bytes/second):		1,516,630
Total Hits:		7,800
Average Hits per Second:		354.545　　　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.

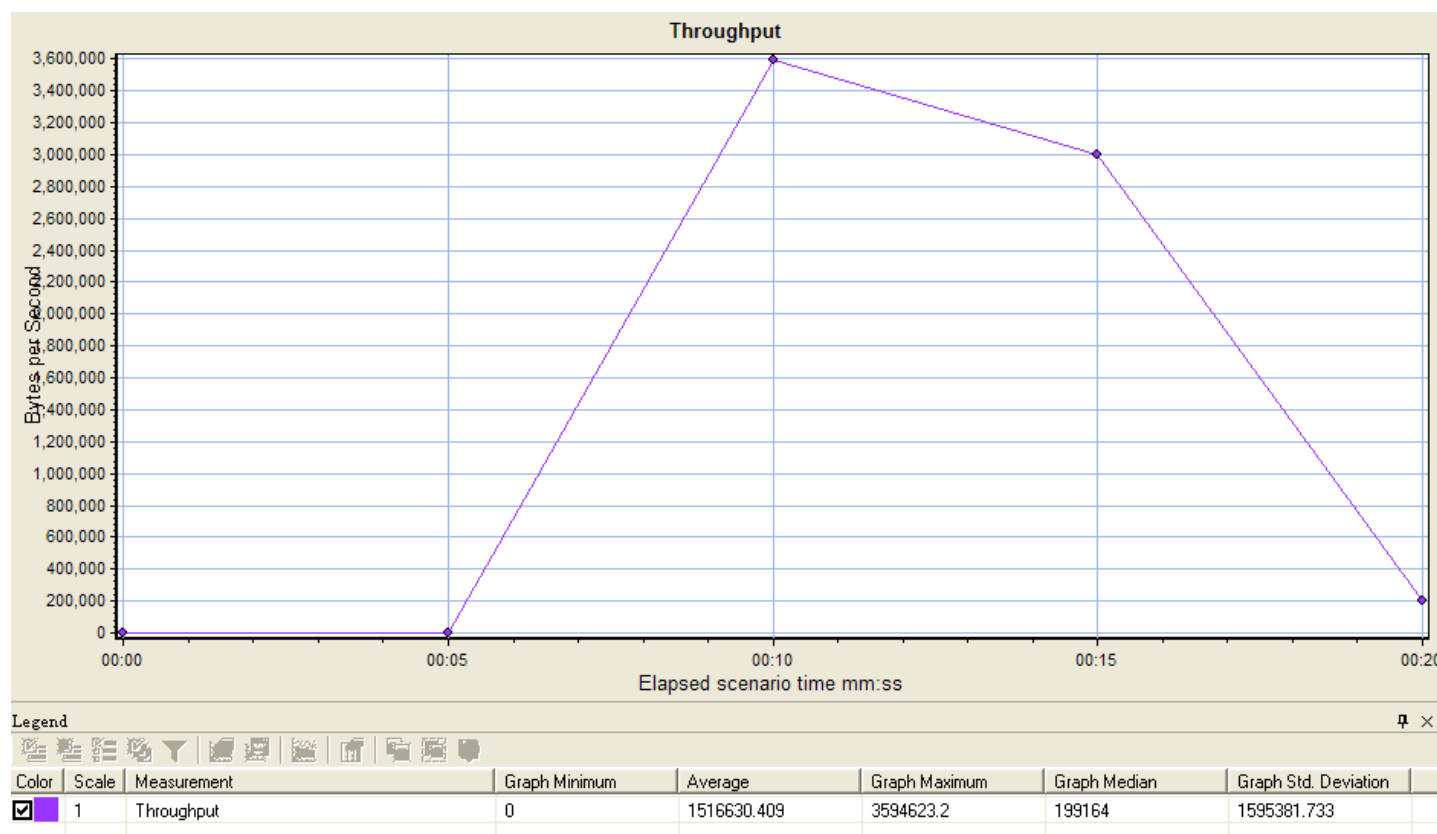| Measurement Name	Time Ranges				
Application Under Test Errors	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20

Transaction Summary

Transactions: Total Passed: 900 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		6.329	11.256	14.27	1.767	12.994	300	0	0
vuser_end_Transaction		0	0	0	0	0	300	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	300	0	0

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(2)吞吐量

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	6.329	12.994	14.27	32,469,656

5.3.5.2 并发 500 虚拟用户

(1)事物响应时间

Statistics Summary

Maximum Running Vusers:		500
Total Throughput (bytes):		56,067,093
Average Throughput (bytes/second):		1,649,032
Total Hits:		13,000
Average Hits per Second:		382.353 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.

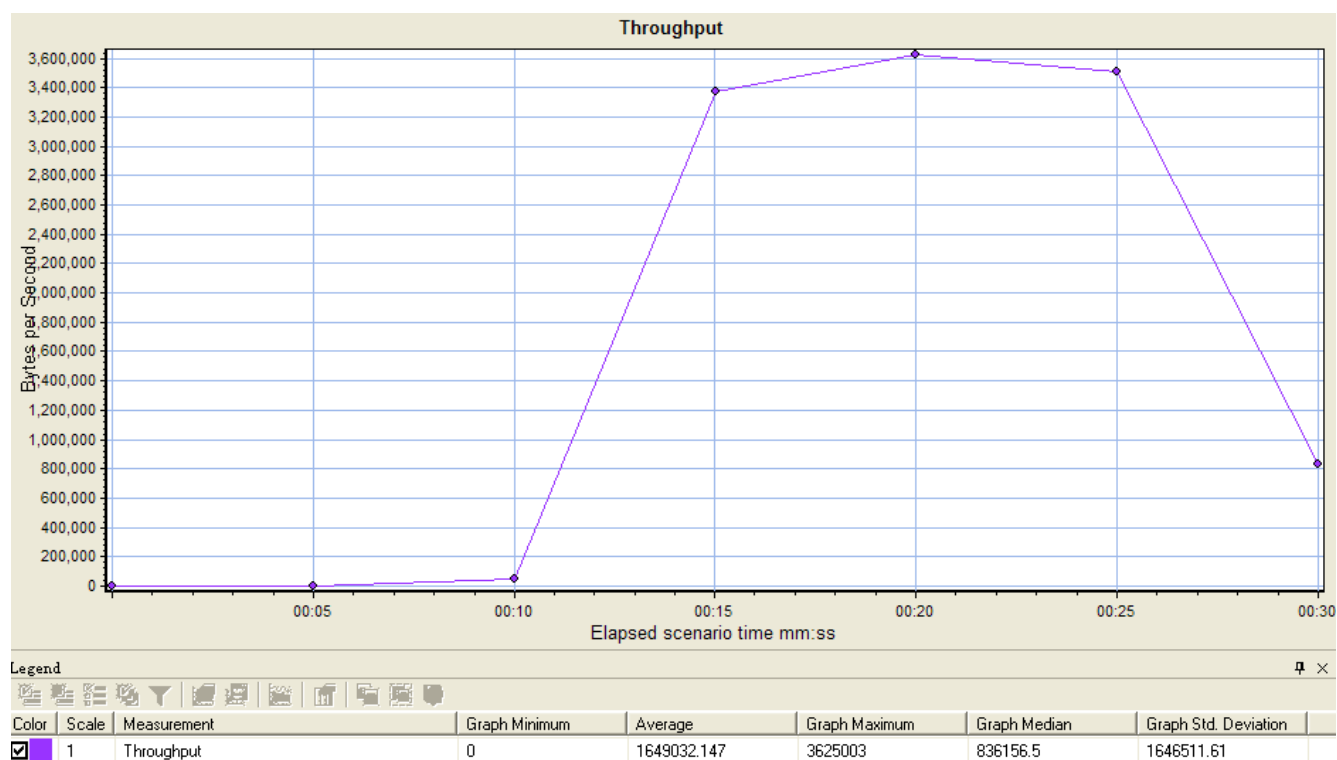| Measurement Name	Time Ranges						
Application Under Test Errors	0	0	0	0	0	0	0
	00:00:00:00	00:00:00:05	00:00:00:10	00:00:00:15	00:00:00:20	00:00:00:25	00:00:00:30

Transaction Summary

Transactions: Total Passed: 1,500 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		4.193	16.913	22.7	4.626	21.59	500	0	0
vuser_end_Transaction		0	0	0	0	0	500	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	500	0	0

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(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	6.329	12.994	14.27	32,469,656
500	4.193	21.59	22.7	56,067,093

5.3.5.3 并发 700 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 700

Total Throughput (bytes):   71,156,445

Average Throughput (bytes/second):   1,654,801

Total Hits: 17,512

Average Hits per Second: 407.256   **View HTTP Responses Summary**

Total Errors: 56

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.

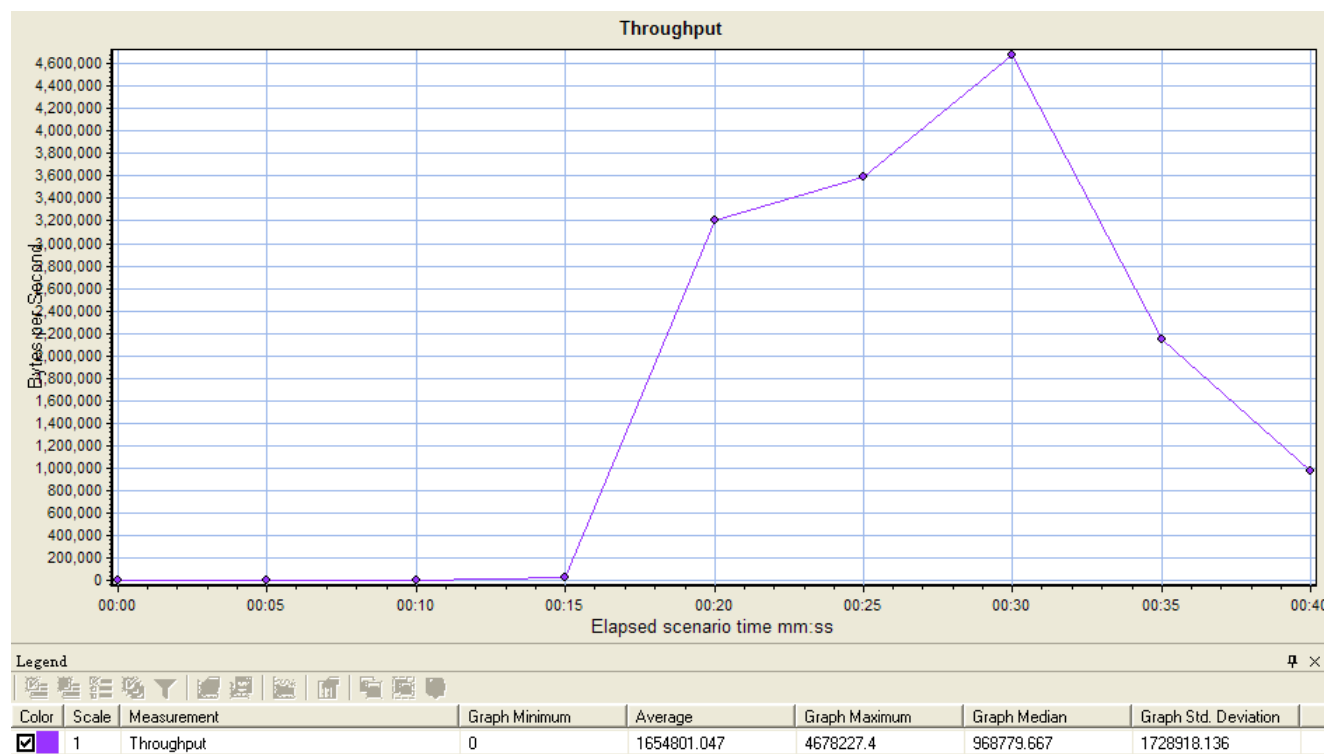| Measurement Name	Time Ranges								
Application Under Test Errors	0	0	0	0	4.5	4	2.6	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40

Transaction Summary

Transactions: Total Passed: 2,044 Total Failed: 56 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction		4.42	21.259	27.367	4.195	25.546	644	56	0
vuser_end_Transaction		0	0	0	0	0	700	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	700	0	0

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(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
300	6.329	12.994	14.27	32,469,656
500	4.193	21.59	22.7	56,067,093
700	4.42	25.546	27.367	71,156,445

5.3.6 媒资详情

5.3.6.1 并发 500 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 500
Total Throughput (bytes):   42,672,864
Average Throughput (bytes/second):   1,219,225
Total Hits: 10,020
Average Hits per Second: 286.286   **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.

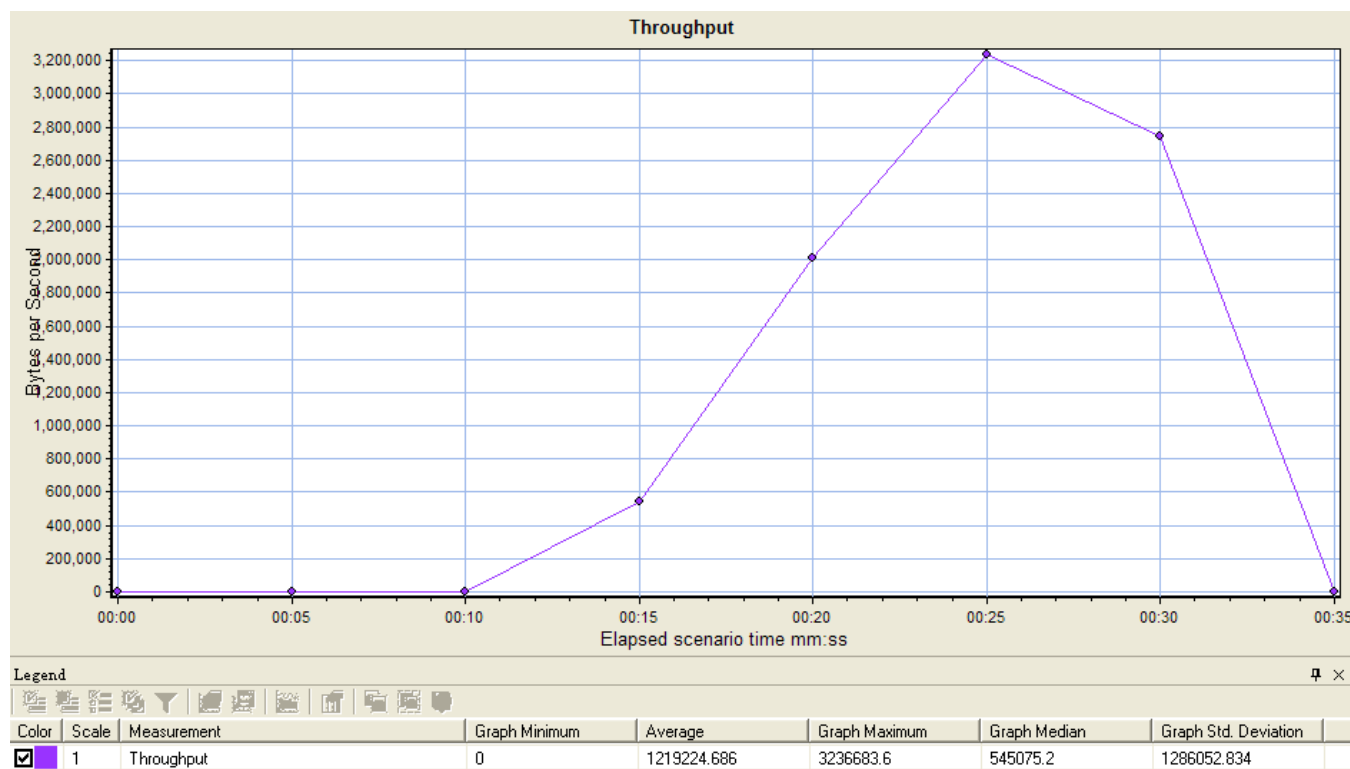| Measurement Name	Time Ranges							
Application Under Test Errors	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35

Transaction Summary

Transactions: Total Passed: 1,501 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		1.674	16.561	23.764	4.323	21.822	501	0	0
vuser_end_Transaction		0	0	0	0	0	500	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	500	0	0

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(2)吞吐量

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation
☑	1	Throughput	0	1219224.686	3236683.6	545075.2	1286052.834

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.674	22.822	23.764	42,672,864

5.3.6.2 并发 600 虚拟用户

(1)事物响应时间

Maximum Running Vusers:		600
Total Throughput (bytes):	🔍	51,151,200
Average Throughput (bytes/second):	🔍	1,162,527
Total Hits:	🔍	12,000
Average Hits per Second:	🔍	272.727 **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	0	0	0	0
	00:00:00:00	00:00:00:05	00:00:00:10	00:00:00:15	00:00:00:20	00:00:00:25	00:00:00:30	00:00:00:35	00:00:00:40

Transaction Summary

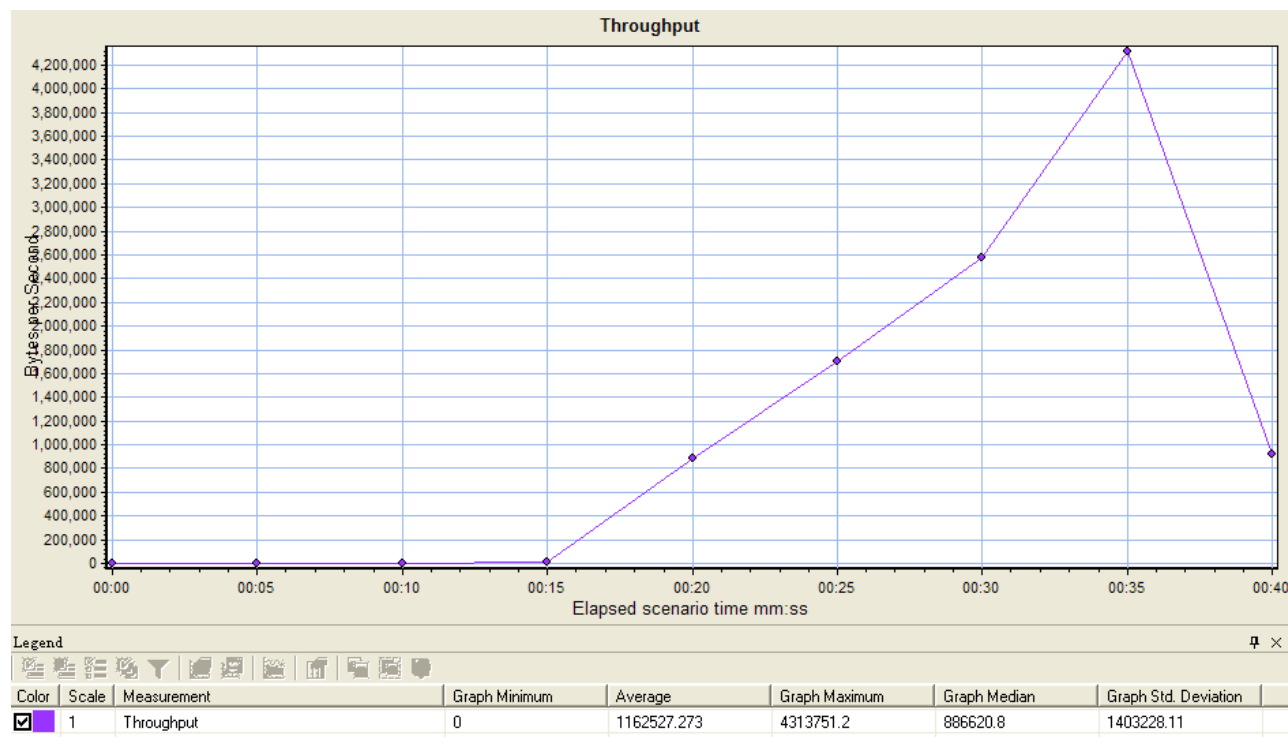**Transactions:** Total Passed: 1,800 Total Failed: 0 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction	🔍	6.132	19.914	29.973	5.322	25.554	600	0	0
vuser_end_Transaction	🔍	0	0	0	0	0	600	0	0
vuser_init_Transaction	🔍	0	0	0.003	0	0.003	600	0	0

(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.674	22.822	23.764	42,672,864
600	6.132	25.554	29.973	51,151,200

5.3.6.3 并发 700 虚拟用户

(1)事物响应时间

Maximum Running Vusers:		700
Total Throughput (bytes):	🔍	56,368,572
Average Throughput (bytes/second):	🔍	1,225,404
Total Hits:	🔍	13,259
Average Hits per Second:	🔍	288.239 **View HTTP Responses Summary**
Total Errors:	🔍	39

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.

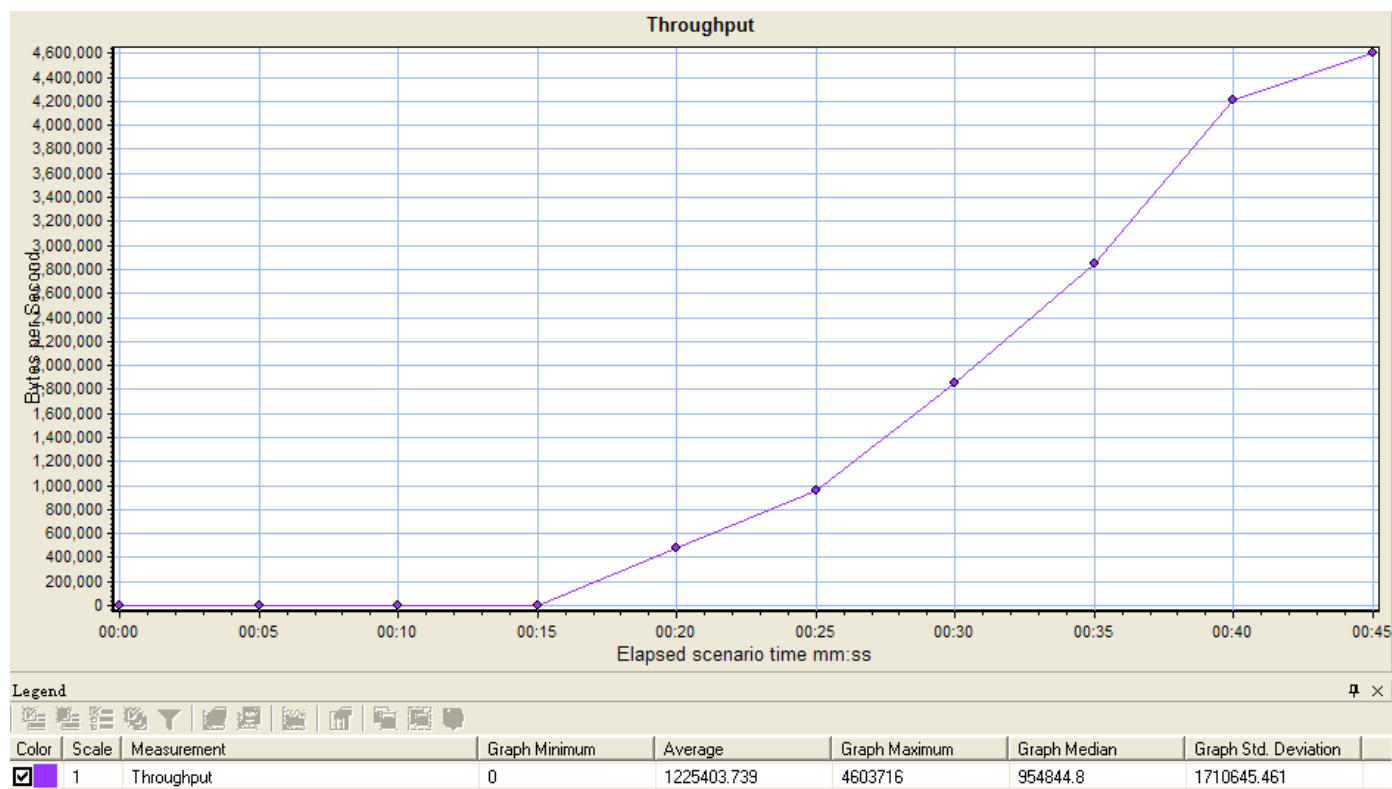| Measurement Name	Time Ranges									
Application Under Test Errors	0	0	0	7.8	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45

Transaction Summary

Transactions: Total Passed: 2,061 Total Failed: 39 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction	🔍	4.933	22.652	30.401	6.108	29.363	661	39	0
vuser_end_Transaction	🔍	0	0	0	0	0	700	0	0
vuser_init_Transaction	🔍	0	0	0.002	0	0.002	700	0	0

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(3)列表

并发数	事物响应时间(s)			吞吐量（Bytes）
	最小	90%事务	最大	
500	1.674	22.822	23.764	42,672,864
600	6.132	25.554	29.973	51,151,200
700	4.933	29.363	30.401	56,368,572

5.3.7 专题详情

5.3.7.1 并发 500 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 500
Total Throughput (bytes): 135,081,576
Average Throughput (bytes/second): 3,554,778
Total Hits: 16,128
Average Hits per Second: 424.421   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.

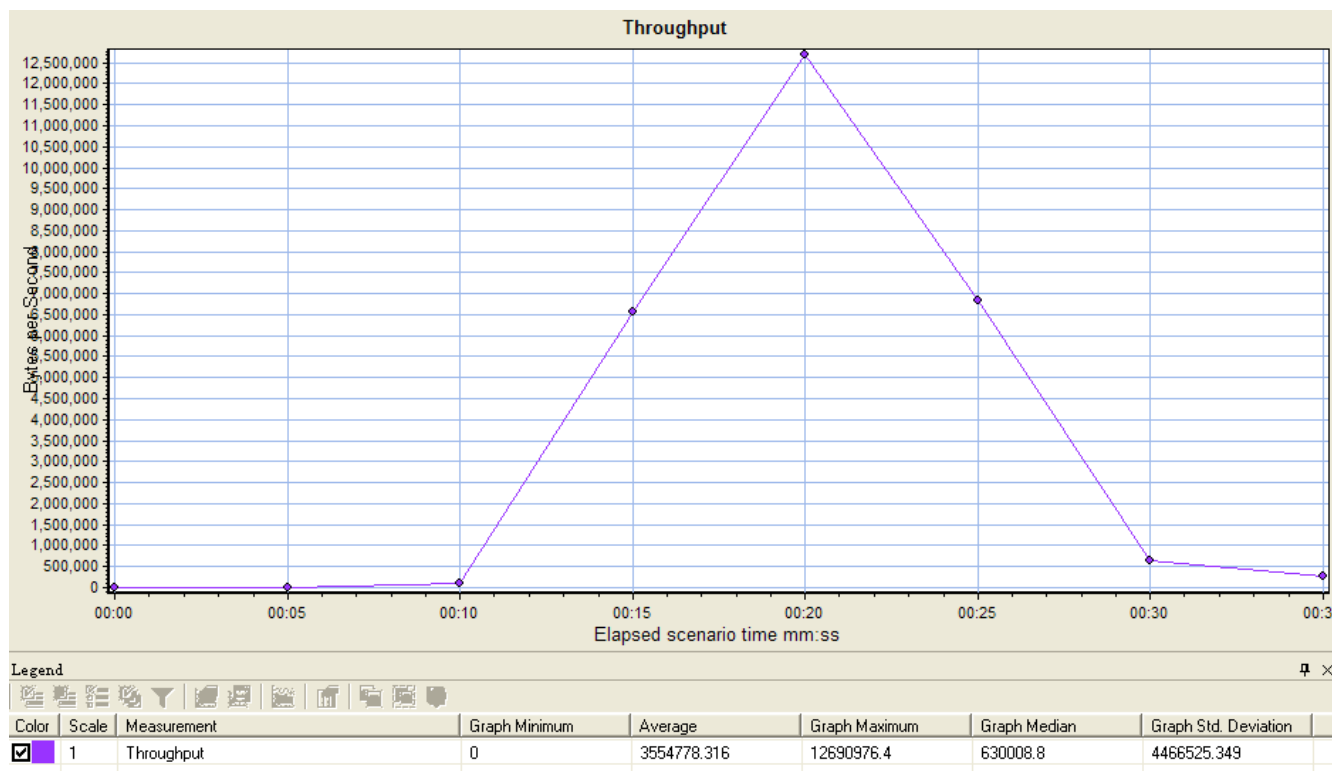| Measurement Name	Time Ranges							
Application Under Test Errors	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35

Transaction Summary

Transactions: Total Passed: 1,504 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		1.22	14.354	26.017	5.189	22.821	504	0	0
vuser_end_Transaction		0	0	0	0	0	500	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	500	0	0

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(2)吞吐量

Throughput

Color	Scale	Measurement	Graph Minimum	Average	Graph Maximum	Graph Median	Graph Std. Deviation	
☑	1	Throughput	0	3554778.316	12690976.4	630008.8	4466525.349	

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.22	22.821	26.017	135,081,576

5.3.7.2 并发 700 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 700

Total Throughput (bytes): 187,613,300

Average Throughput (bytes/second): 2,642,441

Total Hits: 22,400

Average Hits per Second: 315.493   **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.

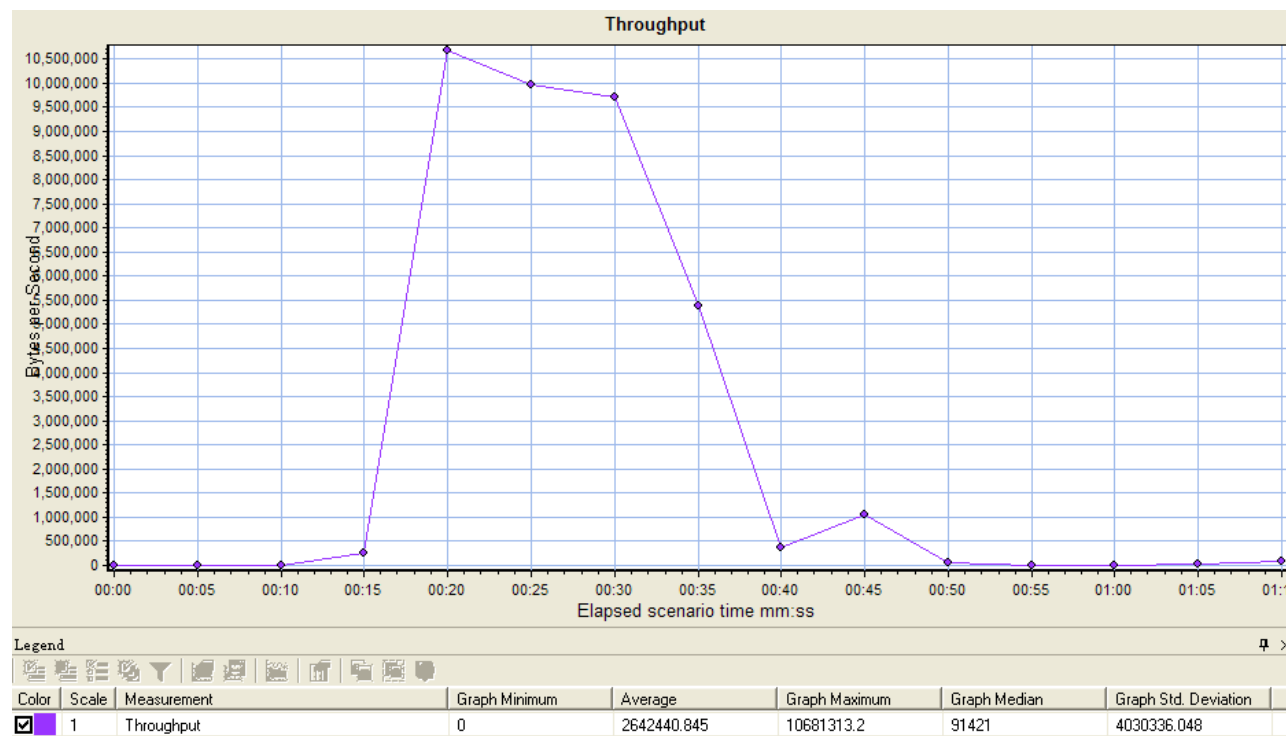| Measurement Name	Time Ranges														
Application Under Test Errors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00	00:01:05	00:01:10

Transaction Summary

Transactions: Total Passed: 2,100 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		2.976	19.574	55.421	7.653	31.081	700	0	0
vuser_end_Transaction		0	0	0	0	0	700	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	700	0	0

(2)吞吐量

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.22	22.821	26.017	135,081,576
700	2.976	31.081	55.421	187,613,300

5.3.7.3 并发 800 虚拟用户

(1)事物响应时间

Maximum Running Vusers: 800

Total Throughput (bytes):   215,630,797

Average Throughput (bytes/second):   2,953,847

Total Hits: 25,752

Average Hits per Second: 352.767   **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.

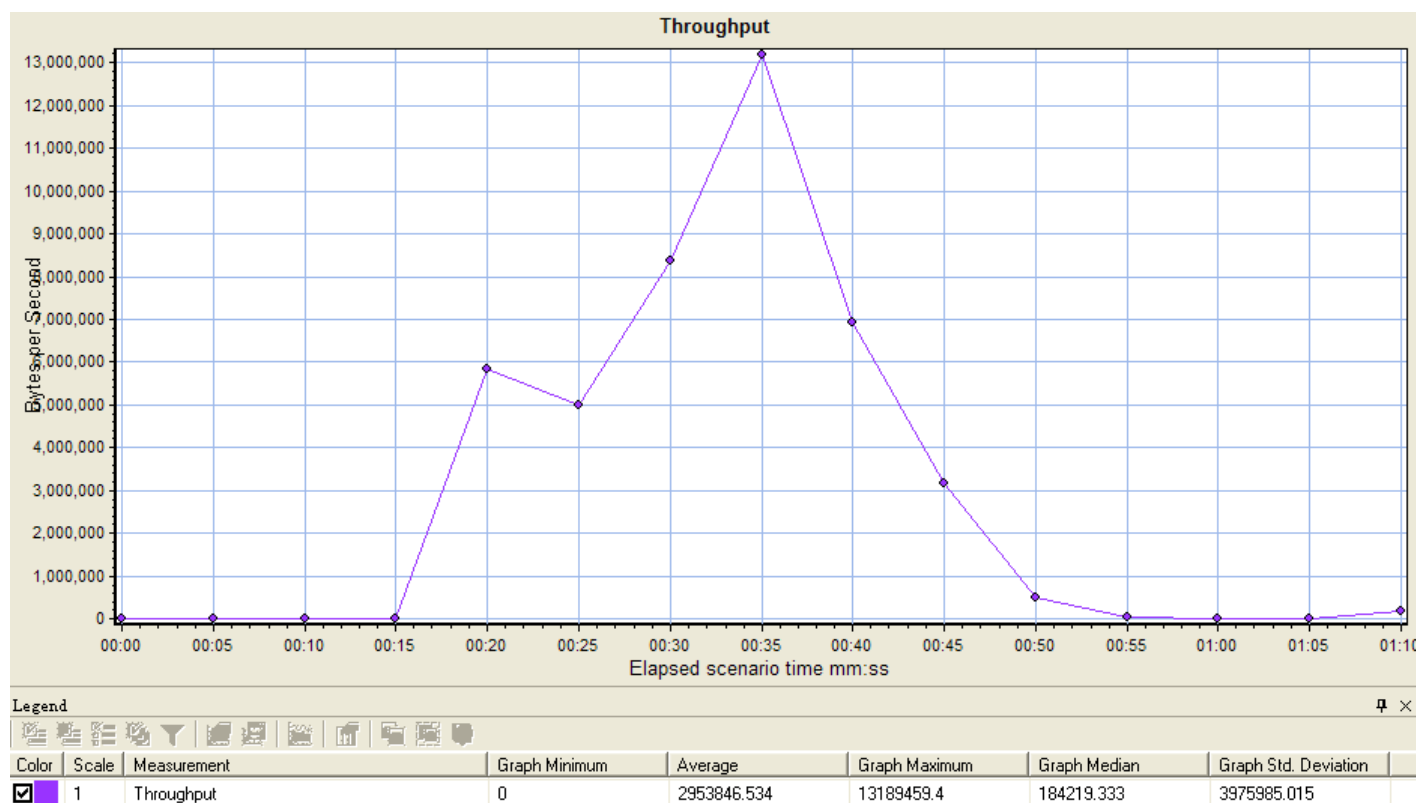| Measurement Name	Time Ranges														
Application Under Test Errors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00	00:01:05	00:01:10

Transaction Summary

Transactions: Total Passed: 2,405 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		0.908	24.618	55.063	7.711	31.874	805	0	0
vuser_end_Transaction		0	0	0	0	0	800	0	0
vuser_init_Transaction		0	0	0.003	0	0.003	800	0	0

(2)吞吐量

(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.22	22.821	26.017	135,081,576
700	2.976	31.081	55.421	187,613,300
800	0.908	31.874	55.063	215,630,797

5.3.7.4 并发 1000 虚拟用户

(1)事物响应时间

Maximum Running Vusers:		1,000
Total Throughput (bytes):		223,056,047
Average Throughput (bytes/second):		3,656,657
Total Hits:		26,739
Average Hits per Second:		438.344 **View HTTP Responses Summary**
Total Errors:		179

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.

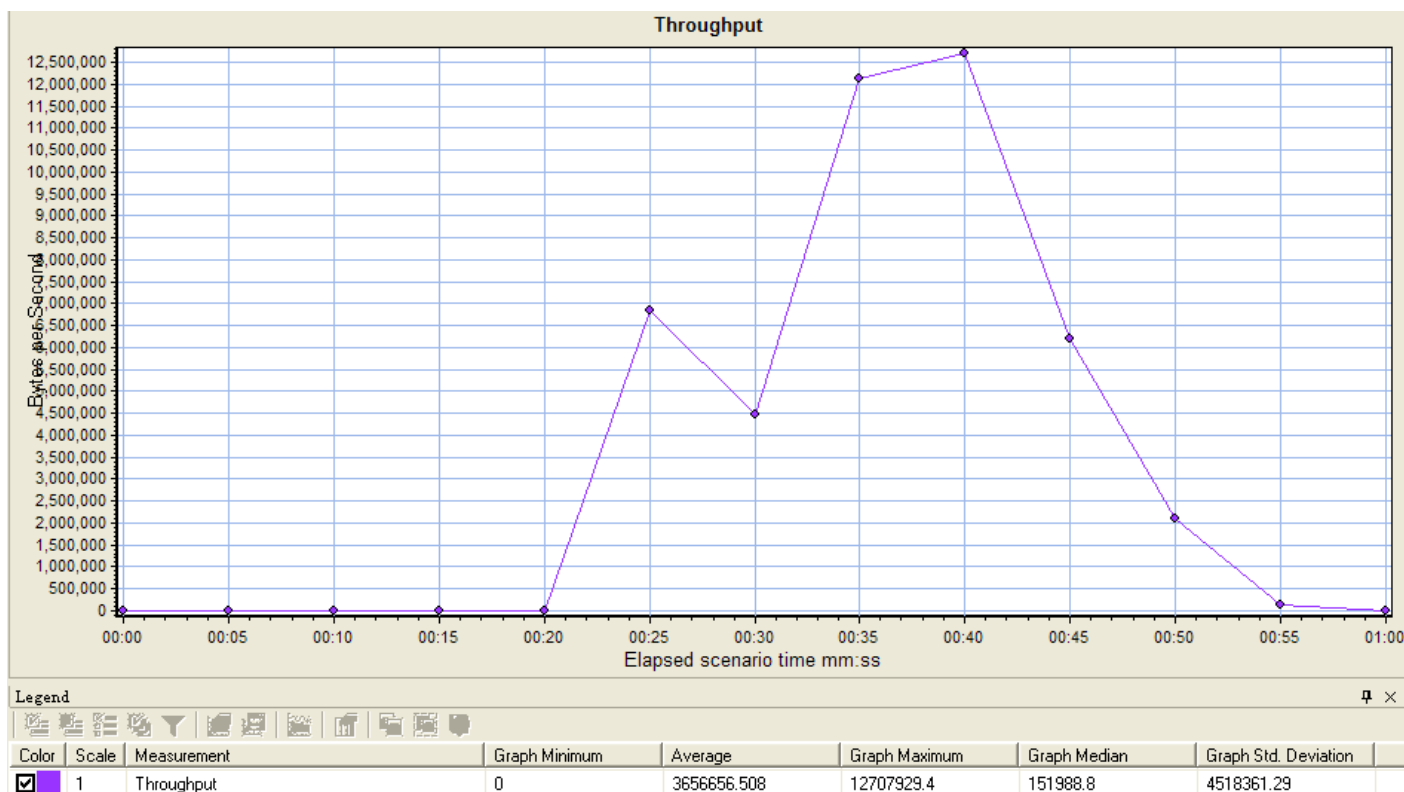| Measurement Name	Time Ranges												
Application Under Test Errors	0	0	0	0	3.2	0	0	0	33	0	0	0	0
	00:00:00	00:00:05	00:00:10	00:00:15	00:00:20	00:00:25	00:00:30	00:00:35	00:00:40	00:00:45	00:00:50	00:00:55	00:01:00

Transaction Summary

Transactions: Total Passed: 2,834 Total Failed: 179 Total Stopped: 0   **Average Response Time**

Transaction Name	SLA Status	Minimum	Average	Maximum	Std. Deviation	90 Percent	Pass	Fail	Stop
Action_Transaction		4.409	24.627	38.646	5.662	31.306	834	179	0
vuser_end_Transaction		0	0	0	0	0	1,000	0	0
vuser_init_Transaction		0	0	0.002	0	0.002	1,000	0	0

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(2)吞吐量

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(3)列表

并发数	事物响应时间(s)			吞吐量
	最小	90%事务	最大	（Bytes）
500	1.22	22.821	26.017	135,081,576
700	2.976	31.081	55.421	187,613,300
800	0.908	31.874	55.063	215,630,797
1000	4.409	31.306	38.646	223,056,047

6 总结

1、总用户量：所有用户的数量集合

2、用户每月使用业务的比例：月活跃用户比例代表的是每个月活跃访问的用户占总用户量的比例

3、日平均活动用户比例：使用最频繁的单日所使用的业务总次数占每月使用总次数的比例

4、每日忙时系统交易量集中系数：一天中使用最频繁的单小时所使用业务总次数占当日总使用次数的比例

5、活动用户平均每日在线业务对象（文件、页面）请求数：用户在访问每个业务时，对页面包含的多个图片等资源的请求数

6、冗余系数：服务器要预留一定的能力以应付突发情况，平时系统负载不超过 50%，取冗余系数为 2

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符号	符号说明	数值
N	用户数	300000
P1	用户每月使用业务的比例	1
P2	日平均活动用户比例	1
n	活动用户平均每日在线业务对象请求数	1000
W	每日忙时系统交易量集中系数	0.2
μ	冗余系数	2

注：以上表格数据为自定义。

因此，根据以上参数可推算出 AVERAGE HITS：

峰值访问压力＝(N*P1*P2*N*W*μ）/3600/20＝1666.65 次/秒

根据以上的模拟并发单台服务器在 1000 左右，按照极端进行范围推算终端用户数[500,750]，在保证以上测试中吞吐量的情况下，以此 10 台服务器可以推算为[5000,7500]；