

AllTypes

Method: GET

Path: /energy/api/AggregatedGenerationPerType/Greece/PT60M/date/2018-01-01

1.Number of Threads (users): 10 Ramp-up period (seconds): 5 Loop Count: 1

-Summary Report:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
HTTP Request	10	447	411	468	15.65	0.00%	2.0/sec	77.63	0.78	39055.0
TOTAL	10	447	411	468	15.65	0.00%	2.0/sec	77.63	0.78	39055.0

-Results in Table (first 10 users):

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1	20:04:16.615	Thread Group 1-1	HTTP Request	467		39055	394	466	15
2	20:04:17.115	Thread Group 1-2	HTTP Request	443		39055	394	443	20
3	20:04:17.618	Thread Group 1-3	HTTP Request	456		39055	394	455	38
4	20:04:18.114	Thread Group 1-4	HTTP Request	450		39055	394	450	17
5	20:04:18.615	Thread Group 1-5	HTTP Request	455		39055	394	455	32
6	20:04:19.116	Thread Group 1-6	HTTP Request	442		39055	394	441	16
7	20:04:19.619	Thread Group 1-7	HTTP Request	468		39055	394	468	17
8	20:04:20.116	Thread Group 1-8	HTTP Request	448		39055	394	447	9
9	20:04:20.615	Thread Group 1-9	HTTP Request	436		39055	394	436	12
10	20:04:21.117	Thread Group 1-10	HTTP Request	411		39055	394	410	8

-Graph Results:

Για 10 χρήστες τα requests δεν ήταν αρκετά για να δούμε αντιπροσωπευτικά δεδομένα στο γράφημα

2.Number of Threads (users): 75 Ramp-up period (seconds): 5 Loop Count: 1

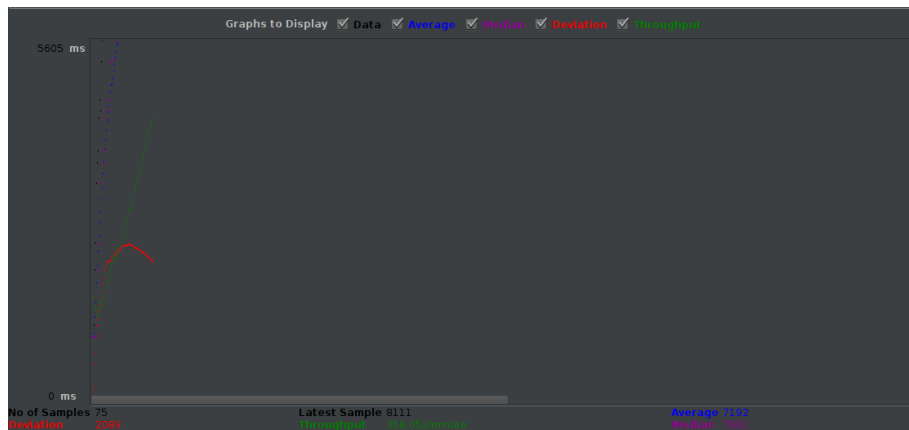
-Summary Reports:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
HTTP Request	75	7192	883	10131	2089.29	0.00%	6.0/sec	228.24	2.30	39055.0
TOTAL	75	7192	883	10131	2089.29	0.00%	6.0/sec	228.24	2.30	39055.0

-Results in table (10 first and 10 last users):

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	20:08:22.751	Thread Group ...	HTTP Request	883		39055	394	883	16
2	20:08:22.819	Thread Group ...	HTTP Request	891		39055	394	891	47
3	20:08:22.891	Thread Group ...	HTTP Request	1070		39055	394	1070	19
4	20:08:22.956	Thread Group ...	HTTP Request	1959		39055	394	1959	7
5	20:08:23.025	Thread Group ...	HTTP Request	2391		39055	394	2391	8
6	20:08:23.091	Thread Group ...	HTTP Request	3340		39055	394	3340	12
7	20:08:23.153	Thread Group ...	HTTP Request	3664		39055	394	3664	8
8	20:08:23.288	Thread Group ...	HTTP Request	3852		39055	394	3852	7
9	20:08:23.355	Thread Group ...	HTTP Request	4381		39055	394	4381	10
10	20:08:23.219	Thread Group ...	HTTP Request	4658		39055	394	4658	10
65	20:08:26.570	Thread Group ...	HTTP Request	8472		39055	394	8472	17
66	20:08:27.642	Thread Group ...	HTTP Request	7414		39055	394	7413	9
67	20:08:27.307	Thread Group ...	HTTP Request	7758		39055	394	7758	8
68	20:08:26.837	Thread Group ...	HTTP Request	8237		39055	394	8237	9
69	20:08:26.904	Thread Group ...	HTTP Request	8179		39055	394	8179	17
70	20:08:27.039	Thread Group ...	HTTP Request	8096		39055	394	8096	9
71	20:08:27.107	Thread Group ...	HTTP Request	8041		39055	394	8040	11
72	20:08:27.509	Thread Group ...	HTTP Request	7669		39055	394	7668	8
73	20:08:26.637	Thread Group ...	HTTP Request	8556		39055	394	8556	20
74	20:08:27.709	Thread Group ...	HTTP Request	7567		39055	394	7567	9
75	20:08:27.173	Thread Group ...	HTTP Request	8111		39055	394	8110	8

-Graph Results:



3.Number of Threads (users): 150 Ramp-up period (seconds): 5 Loop Count: 1

-Summary Reports:

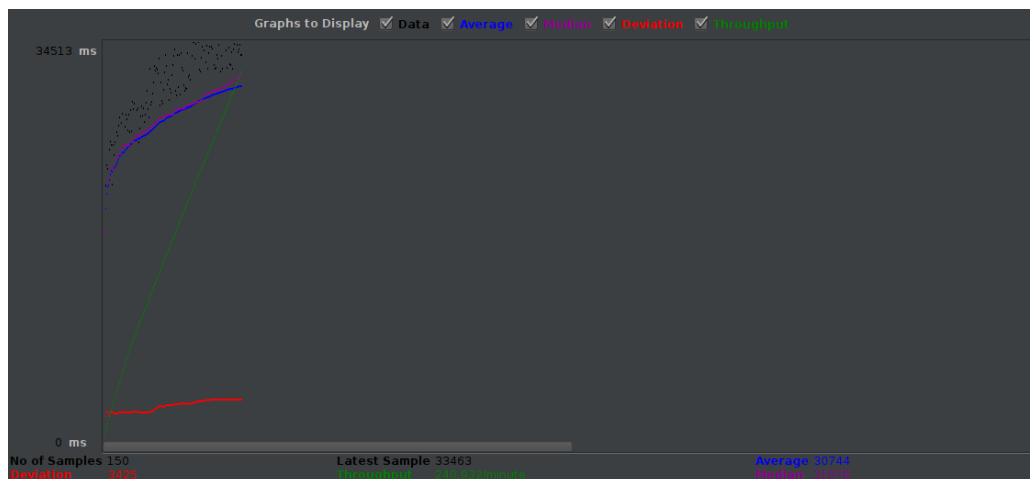
Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
HTTP Request	150	30744	18082	35702	3425.89	0.00%	4.0/sec	153.15	1.55	39055.0
TOTAL	150	30744	18082	35702	3425.89	0.00%	4.0/sec	153.15	1.55	39055.0

-Results in tables (for 10 first and 10 last users):

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	20:18:46.318	Thread Group ...	HTTP Request	18082	✓	39055	394	18081	23
2	20:18:46.410	Thread Group ...	HTTP Request	22026	✓	39055	394	22025	19
3	20:18:46.115	Thread Group ...	HTTP Request	23800	✓	39055	394	23799	114
4	20:18:46.476	Thread Group ...	HTTP Request	23541	✓	39055	394	23540	14
5	20:18:48.059	Thread Group ...	HTTP Request	22724	✓	39055	394	22723	18
6	20:18:46.179	Thread Group ...	HTTP Request	25220	✓	39055	394	25219	54
7	20:18:46.213	Thread Group ...	HTTP Request	25943	✓	39055	394	25943	47
8	20:18:46.610	Thread Group ...	HTTP Request	25571	✓	39055	394	25570	23
9	20:18:50.041	Thread Group ...	HTTP Request	22147	✓	39055	394	22147	13
10	20:18:46.715	Thread Group ...	HTTP Request	25597	✓	39055	394	25597	22

140	20:18:49.512	Thread Group ...	HTTP Request	33676	✓	39055	394	33666	13
141	20:18:49.346	Thread Group ...	HTTP Request	33912	✓	39055	394	33908	26
142	20:18:48.852	Thread Group ...	HTTP Request	34413	✓	39055	394	34409	17
143	20:18:48.027	Thread Group ...	HTTP Request	35249	✓	39055	394	35249	17
144	20:18:47.994	Thread Group ...	HTTP Request	35333	✓	39055	394	35332	12
145	20:18:49.018	Thread Group ...	HTTP Request	34330	✓	39055	394	34330	27
146	20:18:49.711	Thread Group ...	HTTP Request	33643	✓	39055	394	33643	17
147	20:18:49.479	Thread Group ...	HTTP Request	33887	✓	39055	394	33887	19
148	20:18:49.084	Thread Group ...	HTTP Request	34294	✓	39055	394	34294	19
149	20:18:49.973	Thread Group ...	HTTP Request	33426	✓	39055	394	33426	11
150	20:18:49.942	Thread Group ...	HTTP Request	33463	✓	39055	394	33462	10

-Graph Results:



Για την ανάλυση των επιδόσεων του REST API χρησιμοποιήθηκε το εργαλείο Jmeter

ΑΝΑΛΥΣΗ ΔΕΙΓΜΑΤΩΝ:

****Παρατηρήσαμε ότι ο μέγιστος αριθμός ταυτόχρονων requests που μπορεί να εξυπηρετήσει το REST API μας χωρίς κανένα error είναι περίπου 150.**

Ανάλυση Graph:

- **Data** - plot the actual data values
- **Average** - plot the Average
- **Median** - plot the **Median** (midway value)
- **Deviation** - plot the **Standard Deviation** (a measure of the variation)
- **Throughput** - plot the number of samples per unit of time

Ανάλυση Summary Report:

- **Label** - The label of the sample. If "**Include group name in label?**" is selected, then the name of the thread group is added as a prefix. This allows identical labels from different thread groups to be collated separately if required.
- **# Samples** - The number of samples with the same label
- **Average** - The average elapsed time of a set of results
- **Min** - The lowest elapsed time for the samples with the same label
- **Max** - The longest elapsed time for the samples with the same label
- **Std. Dev.** - the **Standard Deviation** of the sample elapsed time
- **Error %** - Percent of requests with errors
- **Throughput** - the **Throughput** is measured in requests per second/minute/hour. The time unit is chosen so that the displayed rate is at least **1.0**. When the throughput is saved to a CSV file, it is expressed in requests/second, i.e. 30.0 requests/minute is saved as **0.5**.
- **Received KB/sec** - The throughput measured in Kilobytes per second
- **Sent KB/sec** - The throughput measured in Kilobytes per second
- **Avg. Bytes** - average size of the sample response in bytes.

ΠΗΓΕΣ: <https://jmeter.apache.org/>