

Performance Testing

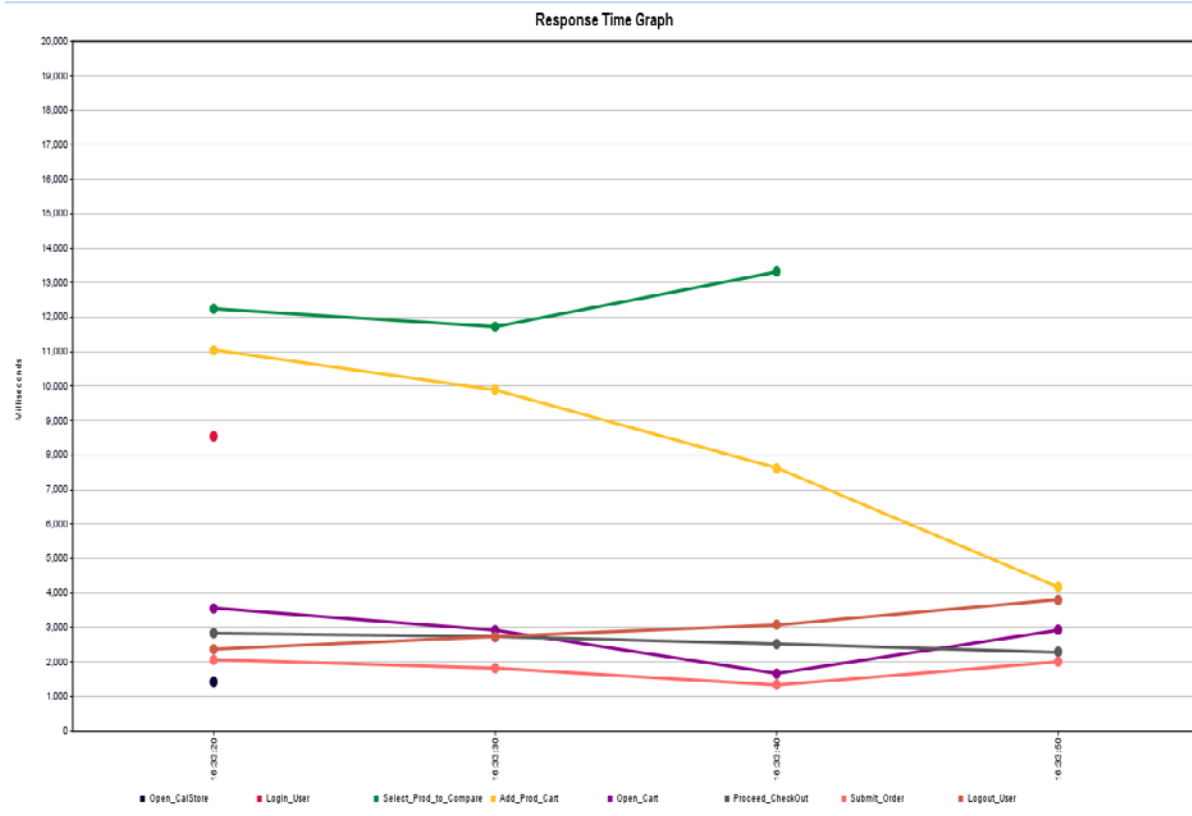
As part of the Cal eStore application quality check and validation process we conducted performance testing for the application by simulating the surges in traffic to identify performance bottlenecks. We used jMeter, an Open Source testing software. It is a Java based application for load and performance testing. jMeter is designed to cover categories of tests like load, functional, performance, regression, and others, and it requires JDK 5 or higher.

The load test was performed by creating 20 users with use cases for performing following actions.

- Open Cal eStore Application
- Log in to the account
- Add product to compare
- Add Product to cart
- Open cart
- Proceed to check out
- Submit order
- Log out the user

Our testing team found the performance as satisfactory when tested with 20 users. Our testing is summarized in the following graphics.

Summary Report										
Name: Summary Report										
Comments:										
Write results to file / Read from file										
Filename										
Log/Display Only: <input type="checkbox"/> Errors <input type="checkbox"/> Successes <input type="button" value="Configure"/>										
Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	KB/sec	Avg. Bytes	
Open_CalStore	20	1420	859	3873	779.52	0.00%	5.2/sec	565.03	112247.0	
Login_User	20	13288	3678	15877	2838.54	0.00%	1.2/sec	355.72	299730.8	
Seled_Prod_to_Compare	20	12843	1582	16236	2012.77	0.00%	46.8/min	208.15	273285.2	
Add_Prod_Cart	20	4854	2705	10840	1955.44	0.00%	56.1/min	187.00	204940.5	
Open_Cart	20	2798	1480	3886	749.57	5.00%	1.0/sec	202.38	200697.6	
Proceesd_CheckOut	20	2191	1051	2931	528.37	0.00%	1.1/sec	203.27	197643.9	
Submit_Order	20	1616	910	2878	470.00	0.00%	1.1/sec	210.68	196527.0	
Logout_User	20	2023	1140	5283	844.09	0.00%	1.1/sec	292.92	270315.0	
TOTAL	160	5130	859	16236	4927.89	0.62%	3.7/sec	783.80	219423.4	



Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Latency	Connect Time(ms)
1	16:33:25.182	CalStore_Compare_Place...	Open_CalStore	859	✓	112247	0	0
2	16:33:24.816	CalStore_Compare_Place...	Open_CalStore	1242	✓	112247	0	0
3	16:33:25.238	CalStore_Compare_Place...	Open_CalStore	1089	✓	112247	0	0
4	16:33:25.005	CalStore_Compare_Place...	Open_CalStore	1387	✓	112247	0	0
5	16:33:25.579	CalStore_Compare_Place...	Open_CalStore	886	✓	112247	0	0
6	16:33:25.064	CalStore_Compare_Place...	Open_CalStore	1431	✓	112247	0	0
7	16:33:25.122	CalStore_Compare_Place...	Open_CalStore	1388	✓	112247	0	0
8	16:33:25.306	CalStore_Compare_Place...	Open_CalStore	1209	✓	112247	0	0
9	16:33:25.634	CalStore_Compare_Place...	Open_CalStore	953	✓	112247	0	0
10	16:33:25.524	CalStore_Compare_Place...	Open_CalStore	1061	✓	112247	0	0
11	16:33:25.471	CalStore_Compare_Place...	Open_CalStore	1148	✓	112247	0	0
12	16:33:24.945	CalStore_Compare_Place...	Open_CalStore	1674	✓	112247	0	0
13	16:33:25.414	CalStore_Compare_Place...	Open_CalStore	1260	✓	112247	0	0
14	16:33:25.355	CalStore_Compare_Place...	Open_CalStore	1329	✓	112247	0	0
15	16:33:25.800	CalStore_Compare_Place...	Open_CalStore	966	✓	112247	0	0
16	16:33:25.745	CalStore_Compare_Place...	Open_CalStore	1060	✓	112247	0	0
17	16:33:25.689	CalStore_Compare_Place...	Open_CalStore	1142	✓	112247	0	0
18	16:33:25.859	CalStore_Compare_Place...	Open_CalStore	972	✓	112247	0	0
19	16:33:24.898	CalStore_Compare_Place...	Open_CalStore	3473	✓	112247	0	0
20	16:33:24.754	CalStore_Compare_Place...	Open_CalStore	3873	✓	112247	0	0
21	16:33:26.631	CalStore_Compare_Place...	Login_User	3678	✓	196632	0	0
22	16:33:26.522	CalStore_Compare_Place...	Login_User	9830	✓	305157	0	0
23	16:33:26.473	CalStore_Compare_Place...	Login_User	10220	✓	305157	0	0
24	16:33:26.503	CalStore_Compare_Place...	Login_User	11119	✓	305157	0	0
25	16:33:26.515	CalStore_Compare_Place...	Login_User	12203	✓	305157	0	0
26	16:33:26.336	CalStore_Compare_Place...	Login_User	13038	✓	305157	0	0
27	16:33:30.319	CalStore_Compare_Place...	Select_Prod_To_Compare	9931	✓	267474	0	0
28	16:33:26.845	CalStore_Compare_Place...	Login_User	13881	✓	305157	0	0
29	16:33:26.596	CalStore_Compare_Place...	Login_User	14215	✓	305157	0	0
30	16:33:26.634	CalStore_Compare_Place...	Login_User	12242	✓	305157	0	0
31	16:33:26.597	CalStore_Compare_Place...	Login_User	14305	✓	305157	0	0
32	16:33:26.774	CalStore_Compare_Place...	Login_User	14329	✓	305157	0	0
33	16:33:26.841	CalStore_Compare_Place...	Login_User	14591	✓	305157	0	0
34	16:33:26.814	CalStore_Compare_Place...	Login_User	14708	✓	305157	0	0
35	16:33:26.070	CalStore_Compare_Place...	Login_User	15543	✓	305157	0	0
36	16:33:26.399	CalStore_Compare_Place...	Login_User	15405	✓	305157	0	0
37	16:33:26.056	CalStore_Compare_Place...	Login_User	15867	✓	305157	0	0
38	16:33:28.376	CalStore_Compare_Place...	Login_User	13592	✓	305157	0	0
39	16:33:26.686	CalStore_Compare_Place...	Login_User	15556	✓	305157	0	0
40	16:33:26.694	CalStore_Compare_Place...	Login_User	15565	✓	305157	0	0
41	16:33:26.628	CalStore_Compare_Place...	Login_User	15877	✓	305157	0	0
42	16:33:40.258	CalStore_Compare_Place...	Add_Prod_Cart	4668	✓	199136	0	0
43	16:33:37.634	CalStore_Compare_Place...	Select_Prod_To_Compare	7444	✓	273591	0	0
44	16:33:36.360	CalStore_Compare_Place...	Select_Prod_To_Compare	8984	✓	273591	0	0