Baseline Performance Analysis: Acceptance Test

Analysis Summary

A Baseline Report is very important because it tells what the initial performance of the system is when not under load. The web server will never be any faster than this! A baseline report starts from a particular load configuration, and then calculates the beginning performance, and the requirements for the test.

Bandwidth requirements for 500 users

Minimum Bandwidth Required (estimated)[1]	Total User Network Speed (as configured)[2]
16,062.7 kbps	2,499,463.5 kbps

1. The *Minimum Bandwidth Required* describes the total bandwidth that will be consumed by the configured combination of testcases. This assumes that the network is fully saturated and bandwidth usage is evenly distributed. This is highly unlikely in practice, so it is safe to assume the actual bandwidth requirement will exceed this minimum. Running a full load-test simulation will more accurately determine the bandwidth required to maintain the desired performance level.

2. The *Total User Network Speed* describes the total bandwidth available to the users as configured. If the users are all on a local network and this total exceeds the capacity of that network, the configuration should be adjusted as needed for the most accurate estimate.

Performance Goals

The goals section measures whether the configured test can run as described and possibly meet the performance goals. For example, typically test cases are recorded over a local LAN with much more bandwidth available than the users will see from home or a remote office. By specifying the user's bandwidth, this bandwidth can calculate whether the performance goals can be met over that connection before a test is even run, saving the trouble of actually running the test.

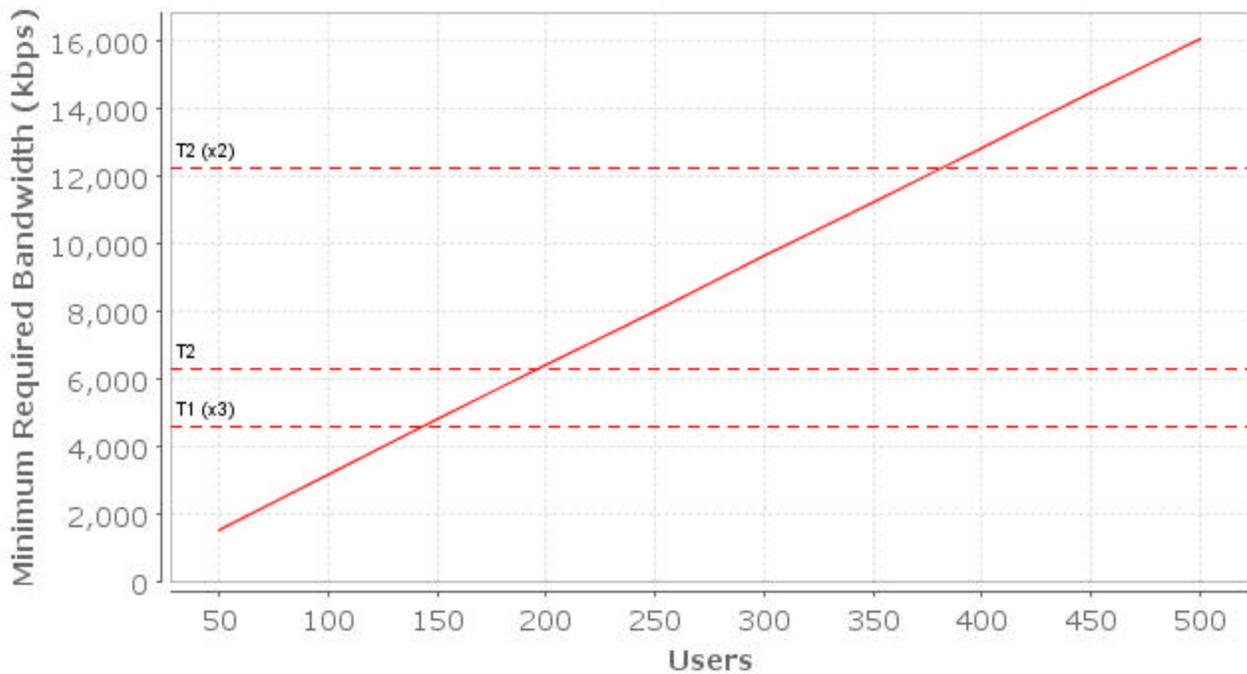100% (17 of 17) of performance goals were met.

The performance goals were met when recorded. Load-testing is required to determine if the performance goals can be met when multiple users are accessing the application.

Bandwidth Analysis

The bandwidth section of the report calculates the bandwidth requirements to run the specified test cases at the described load. This is great for bandwidth capacity planning before starting a large load test.

Minimum Bandwidth Requirement (estimated)

testcase	Avg Bandwidth Consumed	# Users	Simulated User Network Speed
create issue (1)	5,567.7 kbps	166	5 Mbps
browse issues (2)	10,494.9 kbps	333	5 Mbps
Total:	**16,062.7 kbps**	**500**	

Per-testcase bandwidth consumption (per user)

testcase	Avg Bandwidth Consumed	Simulated User Network Speed	Size (bytes)	Estimated Duration (MM:SS)
create issue (1)	33.3 kbps	5 Mbps	144,220	00:34
browse issues (2)	31.2 kbps	5 Mbps	136,907	00:35

Performance Goals

Testcase goals

Testcase	Goals Met (as recorded)
create issue (1)	100% (8 of 8)
browse issues (2)	100% (9 of 9)
Total	**100% (17 of 17)**

Web Page goals for testcase: create issue (1)

Page	Duration	Size	Failed Goal(s) (as recorded)
Issue Tracker - Login [1]	00:00.398	29,898	
Issue Tracker - Issues [1]	00:00.133	15,226	
Issue Tracker - Issues [2]	00:01.344	19,337	
SmartNav.htm	00:00.039	11,028	
Issue Tracker - Issues [3]	00:00.194	21,349	
Issue Tracker - Issues [4]	00:00.119	22,068	
Issue Tracker - Issues [5]	00:00.461	20,878	
Issue Tracker - Login [2]	00:00.084	4,436	

Web Page goals for testcase: browse issues (2)

Page	Duration	Size	Failed Goal(s) (as recorded)
Issue Tracker - Login [1]	00:00.424	29,898	
Issue Tracker - Issues [1]	00:01.123	21,990	
Issue Tracker - Issues [2]	00:00.633	17,458	
SmartNav.htm	00:00.055	11,034	
Issue Tracker - Issues [3]	00:00.058	8,579	
Issue Tracker - Issues [4]	00:00.072	17,464	
Issue Tracker - Issues [5]	00:00.060	8,579	
Issue Tracker - Issues [6]	00:00.081	17,454	
Issue Tracker - Login [2]	00:00.188	4,451	