

Response Time

The purpose of this section of the document is to outline the Software Performance Goals for Product X. These are the goals that Supplier Y and Customer Z minimally require to see in the Performance Test environment before putting an application into Production. These are not Data Centre SLA measures.

Software:

Supplier Y warrants that in supporting 300,000 customers it shall ensure that performance shall not fall below the following level:

95% of ALL visible pages for “normal” customers respond in 8 seconds or less, including infrastructure, excluding backends.

Measurement Points:

The response times will be measured using HP LoadRunner (or similar tool) located behind the firewall and in front of the web servers. The timer will measure the time from the request for a page to when the last bit required to render the page is returned. Backend response times will be measured using the application server log files.

Definitions

Backends are third party products and information providers such as Reuters share quotes not supplied by Supplier Y.

For the purpose of measuring the response time the performance tests should not exceed 60% CPU utilization during the busy hour

Visible Page shall mean a web page visible (non-blank) as seen by a customer. All redirect page times will be included in the response time of the page it redirects to

The test workload will be based on a normal business day, as defined in the workload section below, executed in the release acceptance test environment.

If the Supplier Y Software fails the response time criteria as set out above, then Supplier Y shall be liable to pay to Customer Z of the following amounts (depending on the level of failure):

Software Response Times for failure to meet 95% of all pages in less than 8 seconds

Score	0	1	2	3	4	5
Response Time expressed in seconds	8	8.01-9	9.01-10	10.01-11	11.01-14	14.01 and Over
Cumulative Total Compensation	£0	£8,000	£15,000	£45,000	£90,000	£180,000

Workload

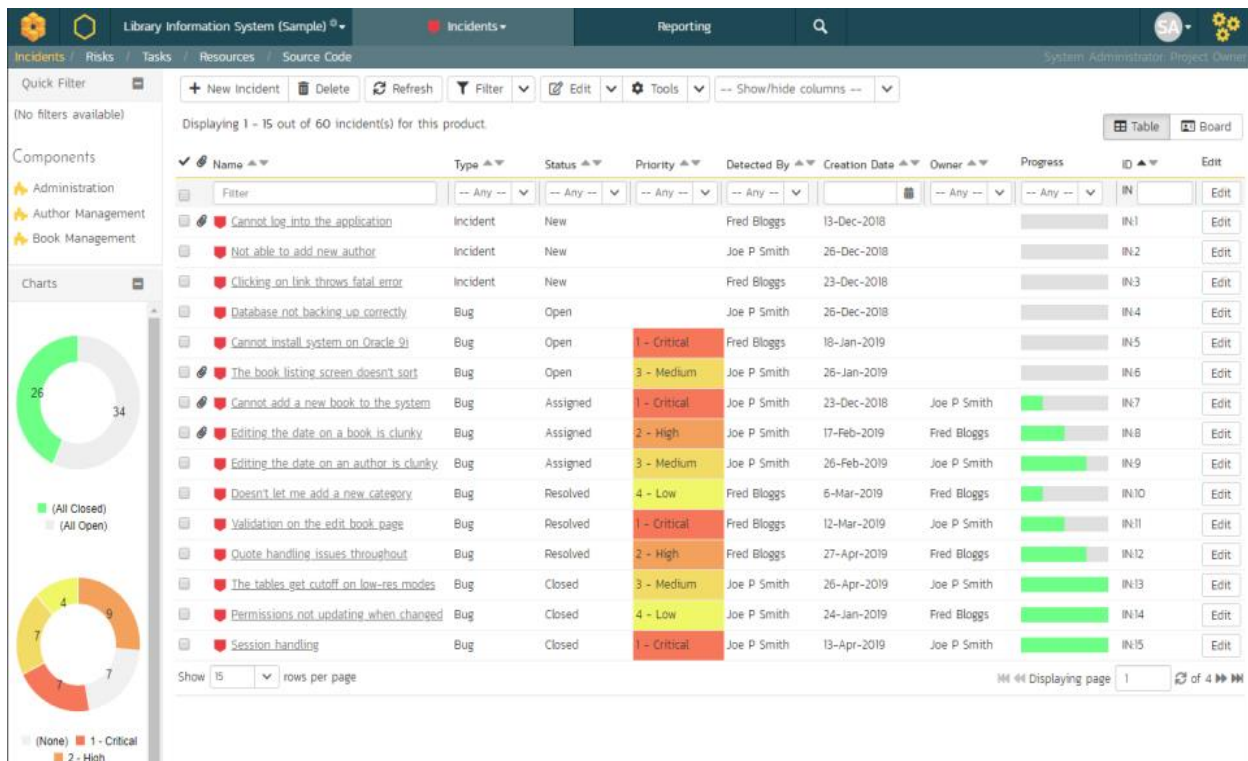
The software must support 80,000 customers which will on a busy day generate 4500 customer interactions as outlined in the table below:

Ref No	Description	Pages	Daily Total
1	Portal	Login, Portal 50% Exit	2500
2	Transaction History (Statement)	Login, Portal, 50%Balances, Statement, 70% D Stat,50% Exit	500
3	Bank Viewer	Login, Portal, 50%Balances, Statement, 70% D Stat, balances,charges,balances,so list, dd list, Int Trf, Bal, portal,50% Exit	700
4	News Reader	Login, Portal, 50% Bal, Stat, 70% D Stat, Intra Day, News, Portal, News, Portal, BV add, 50% Exit	250
5	Portfolio edit	Login, Portal, Portfolio View, Portal Pref, Portfolio View, Add Shares, View Share, Share Quantity, Portfolio View, 50% Exit	100
6	OO Payment	Login, Portal, 50% Balances, Statement, 70% D Stat, OO List, New OO, New Payee, Confirm Payee, OO Details, Confirm OO, OO List, Payee List, Click Payee, Delete Payee, confirm Payee, 50% exit	245
7	Assign MM Category	Login, Portal, 50% Balances, Statement, 70% D Stats, GoMM, CreateCategory, ConfirmCategory, Balances, Statement, Click Item, Statement, GoMM, Click Report, Report, 50% Exit	105
8	Detail Bank Browser	Login, Portal, 50%Balances, Statement, 70% D Stats, In Progress, Portal, Alerts, View Alert, Portal, 50% Exit	100
Total			4500

The percentage in front of certain page numbers represents the probability of that page being requested. The think time between all pages is 20 seconds with the exception of the think time between the login and portal pages which is 15 seconds. The profile for work arriving is shown in the figure below:

Scalability

Supplier Y warrants that the banking Software shall be capable of supporting at least 300,000 customers when implemented into a suitable production environment.



Example Performance Requirements

- The system shall be available 24/7 for 363 days in any one calendar year.
- When an operator requests data, it shall start to be presented on the screen within no more than 3 seconds. Based upon a normal background scenario running (As described in document XYZ) and the user terminal being connected to the server.
- The channel capacity for 6.2GHz at a distance of 11m shall be greater than 10-6.
- for a web page download containing 512Kb of text, the latency shall not be greater than 900 ms.
- Upon submitting a request to create a new user profile, the profile shall be created within 2.1 seconds (+/- 0.2s), based upon a normal background scenario running (As described in document XYZ).
- The timing from the moment the credit transaction is submitted to the server, a user information message for the outcome of the transaction is to be sent to the user within no more than 10 seconds.
- The interface shall transmit data at a minimum rate of 9,600 bits/second.
- The spectral efficiency (or modulation efficiency) is to be not less than:
 - 18.1 (bit/s)/Hz downstream.
 - 15.5 (bit/s)/Hz upstream.
- The telecommunications bandwidth shall be not less than 4.5 KHz.
- Application X shall be able to be installed on a Windows 7 Pro system with a minimum of 2Gb of free hard drive space.
- For an Ethernet connection of between 98 and 101 Mbit/s, the throughput shall not be less than 70 Mbit/s.
- When dealing with current process demand levels (detailed within document ABC), the replacement system shall be at least 40% more energy efficient than the existing systems (whose energy consumption figures are contained within document ABC).
- The system shall be scalable to accommodate growth from 1,000 records to 500 million records.
- Game X shall run at 60 +/- 2 frames per second on a system containing a Corei7-2620M 2.7GHz processor with a HP Elitebook 8510w Nvidia 256mb laptop video graphic card.
- Application X shall function with a minimum of 4GB of RAM on a laptop containing a Corei7-2620M 2.7GHz processor.

