PERFORMANCE

INITIAL QUESTIONNAIRE

|  |  |
| --- | --- |
| **Client Name** |  |
| **Project Name** |  |

REVISION HISTORY

| Ver. No. | Date | Prepared By | Approved By | Description |
| --- | --- | --- | --- | --- |
| <Ver. No.> | <Changes approved date> | <Name of person> | <Name of person> | <Changes made to the document from previous version> |
|  |  |  |  |  |
|  |  |  |  |  |

TABLE OF CONTENTS

1 Introduction 3

2 General Requirements 3

3 Support References 4

4 Application 4

5 Systems (if applicable) 5

6 Business Processes, Transaction Profile & Workload 7

7 Performance Targets 9

8 Performance Processes and Tools 10

9 Timelines 11

# Introduction

The Initial Performance testing Questionnaire is completed to understand the Business Requirements of the System and/or application enhancements and its’ need for Performance Testing. This questionnaire will allow the Performance Testing Team to determine if the required testing services can be executed and to make an assessment of what budgetary, time, and labor resources will be required to do the engagement.

Answers to this questionnaire will help AGS gain a better understanding of your applications performance testing needs.

# General Requirements

|  |  |
| --- | --- |
| **Question** | **Response** |
| **Project Name** |  |
| **Project Number** |  |
| **Project Manager** |  |
| **What is the “go live” date?**   1. **If you have multiple “go live” phases, please indicate so.** |  |
| **Has the System been fully function-tested If “NO”**   1. **When is the target date?** 2. **Will the portions to be load tested be fully function tested by the test date?** |  |
| **Provide the description of project (2/3 tier client/server, ASP/Java, etc)** |  |
| **What is the Development Source is it a Vendor or in-house, or combination?** |  |
| **What is the implication of crashing the Application?**   1. **Who needs to be notified?** 2. **Does this affect normal business operations?** |  |

# Support References

Include all the Support and contact details for various resources that support the different Application components and its infrastructure

|  |  |  |
| --- | --- | --- |
| **Description** | **Name** | **Extension** |
| **Application support (Developer)** |  |  |
| **Application support (Developer backup)** |  |  |
| **Application Technical Lead (Development)** |  |  |
| **Business Process Expert (Business Lead)** |  |  |
| **Application QA Lead** |  |  |
| **Tech Operations Project Manager** |  |  |
| **Application Architect** |  |  |
| **Web Systems Support** |  |  |
| **Windows Systems Support** |  |  |
| **Web logic System Support** |  |  |
| **MQ System Support** |  |  |
| **UNIX Systems Support** |  |  |
| **DB2 Systems Support** |  |  |
| **CICS Systems Support** |  |  |
| **Network Systems Support** |  |  |
| **LDAP Support** |  |  |
| **Firewall Support** |  |  |
| **Micro Systems Support** |  |  |
| **Oracle DBA** |  |  |
| **DB2 DBA** |  |  |
| **Middleware Expert (MQ, Weblogic etc)** |  |  |
| **Vendor Contact** |  |  |
| **Any Other Contact 1 …** |  |  |
| **Any Other Contact 2 …** |  |  |

# Application

1. Name the application that needs to be tested for performance
2. Briefly describe the application in terms of its functionality and usage
3. Please provide documentation about the application architecture and design. Describe, in brief, the application’s technical architecture, in terms of components, workflow, programming languages used, and underlying software packages. Also provide details of presentation layer and client side architecture.
4. Provide details of the online business transactions, queries, and reports. What are the types of transactions, queries and reports, and which components do they access?
5. What is the communication protocol between client and server? What protocols are used (HTTP, Tuxedo/JOLT, RMI, FTP, IIOP, GIOP, proprietary protocols (via sockets), etc) in your application
6. What is the approximate / average number of screens per online transaction?
7. Is batch separately executed from on-line transactions, queries, and reports
8. Which are the application data entities that are frequently accessed, or which have high growth? (e.g., customers, employees, policies, transaction data)
9. What are the interfaces between application components? What is the middleware used? (e.g., ODBC between application and database, MQ or MSMQ queues, Tuxedo, etc.)
10. What are the interfaces to other applications? Please provide details on how middleware is used in the application.
11. How many transactions and use cases would you like to test for performance?

# Systems (if applicable)

1. Provide details of the underlying hardware, OS, and software installed on production servers:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Server Name** | **Vendor** | **Operating System**  (with version number) | **CPU Type & MHz** | **IP address** | **Number of CPUs** | **RAM** | **Number of Internal Disks & their Capacity** | **Software Installed on Server**  (with version number) |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

1. Provide details of the underlying hardware, OS, and software installed on QA/Test Environment servers:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Server Name** | **Vendor** | **Operating System**  (with version number) | **CPU Type & MHz** | **IP address** | **Number of CPUs** | **RAM** | **Number of Internal Disks & their Capacity** | **Software Installed on Server**  (with version number) |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

1. Provide details of production system:

* Server utilizations
* RAM consumption
* Disk space consumption
* Disk I/Os per second, as observed per volume

1. What is the database size?
2. Provide details of load balancing and clustering. How does the Application Load balance the requests? (Hardware or Software Load balancing)?
3. Does the application track connection based on IP?
4. Does the application load balance based on IP?
5. Is your QA Environment equivalent to that of production Environment? If “NO” Provide the environment and the sizing difference?
6. Is your QA Environment (Database Server, Application Server, WebServer etc...) shared by any other Application workload?
7. If “Yes” Provide the other applications list
8. If “Yes” Is your production environment shared by other applications if so list the other applications?
9. Provide the High Level Physical Architecture diagram for both production and QA/Test environments. ***Note: We prefer Visio format Soft copies***

# Business Processes, Transaction Profile & Workload

1. Has the system been fully function-tested, if not, when is the target date? Will the portions to be load tested be fully function tested by the test date?
2. What is the data refresh strategy? ( If there are unique constraints on the submitted data )
3. Does the DB need to be restored between test runs?
4. Is it possible to do a rollback?
5. Which business processes will create or consume data?
6. Who can create the test data required for the load testing?
7. Who can clean up the test data created during the load testing?

***Note: Performance testing team is not responsible for creating test data, conditioning and cleanup activities. Detailed data estimated need for the load testing will be provided in the Performance Test Plan***

1. Are there specific requirements for the input data like?

( If Yes, then provide any such data needed to run the tests and user accounts to access to the application)

1. Data validation (credit cards, zip codes, etc.).
2. Data uniqueness (you cannot enter the same data more than once).
3. Is it time sensitive?
4. Is there a max field size?
5. Is it repeatable?
6. Are there disk space limitations? ( As the transaction data during load testing might be voluminous )
7. Is there DB size limitations?
8. What are the types of users who access the application and associated systems?
9. What is the number of registered users of each type?
10. What is the typical number of concurrent users per type?
11. What are the average and peak rates of :

* Business transactions (per hour or per minute)
* Queries (per hour or per minute)
* Reports (per hour or per minute)

1. What are the batch processing windows and frequencies of batch jobs?
2. For every batch flow, please list the batch volumes of data coming in, getting processed, and going out
3. What are the current volumes of:

* Application data entities (e.g., customers, employees, policies, etc.)
* Transaction records
* Large database tables

1. What are the growth rates (per quarter) of:

* Business transactions, queries and reports
* Business entities
* Users of the system

1. How frequently is data loaded in to the database system and what is the typical volume of data per load?
2. What are the other applications that run in the background, how much CPU, RAM, and disk do they consume during on-line and batch operations?

# Performance Targets

1. Is this is a benchmark test?
2. What are the response time targets (or SLAs) for each type of:

* Business Transaction
* Query
* Report

1. What are the expected peak and off-peak transactions volumes during a day, week, month, and year period?
2. What are the expected peak and off-peak transactions/sec (TPS)?
3. What are the targets of number of transactions/queries/reports per day or per hour?
4. What is the target for number of concurrent users that the system can support in production?
5. What are the targets for batch completion times?
6. What are the targets for data loading times?
7. What are the targets for server utilization?
8. What are the targets of time spent on client, network, and server side?
9. What are the acceptable response times for each transaction in all the business flows that needs to be tested?

*Examples:*

1. *Homepage should be load in 1 sec*
2. *ICAU Screen should load in 500 msec*
3. *getAccountHistory API’s roundtrip response time should be < 250 msec*

# Performance Processes and Tools

1. Which of the following tools do you use for Performance Testing (provide version numbers):

* HP Load Runner
* Rational Suite Test Studio
* Compuware QA Load
* Radview Web load
* Empirix e-Load
* Home grown scripts
* Other: Please specify

1. How do you monitor the systems, application, and workload for performance?
2. List the tools that are used for client, network, operating system, application, and database monitoring, with version numbers?
3. Do you have home-grown tools and scripts for monitoring? If so, what do they do?
4. Do you have tools or home-grown scripts for data analysis? If so, what do they do?
5. Do you have an end-to-end performance tracking system in place?
6. How often is an end-to-end system performance review done on your system?
7. Do you perform performance tests before every application release? If so, is it on a production like environment?
8. Have there been designs or architectural changes in the past for obtaining better performance?   
   If so, please provide details.
9. Do you have skilled performance engineers to manage your systems’ and applications’ performance end-to-end? If not, then for what components do you have expertise?
10. What standards do you follow for hardware sizing, performance review of architecture & design, code optimization, performance testing, performance tuning, and monitoring?
11. What are the performance control parameters in the application’s architecture?
12. Do you have production like test data on your test environment?
13. What tools do you use for synthetic data population?

# Timelines

1. When would be the QA Environment ready for performance testing?
2. When will the test data and test accounts be available for performance/load testing?
3. When can the load/performance test be performed? (dates/times)
4. What deadlines are there?
5. Daytime, evening, weekend (what is the preferred time)
6. How much time is available to do the test?

Note: These are not your final timelines for test