**Web Application Performance Test Report**

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Image result for pci dss compliant logo](https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&ved=2ahUKEwiz5IWolZPnAhWisKQKHUvWCzgQjRx6BAgBEAQ&url=https://getlogovector.com/pci-dss-compliant-logo-vector-svg/&psig=AOvVaw3CmQTvutKZzoHCuddrHKNL&ust=1579643635644098) |  |  |  | C:\Users\a.barakat\Pictures\ISO-9001_d619353bc1.jpg | C:\Users\a.barakat\Pictures\ISO%2010002_Col_300x284.jpg | C:\Users\a.barakat\Pictures\logo-OHSAS18001-409x400.jpg |

November 24, 2024

# **Bibliography**

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| --- |
| **Title:** <Company Name> Web App Performance and Stress Testing POC - |

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| --- |
| **Author:** |
| **Name:** Abdelrahman Tawafsheh | **Title:** IS Sr. Analyst | **Signature:** |

|  |
| --- |
| **Versions:** |
| **Version 1** | 24th Oct, 2024 | **By:** <Company name> Team |

|  |
| --- |
| **Reviewed and Approved By:** |
| **Name** | **Title** | **Signature** |
| Odai Abdul Rahman | IS Deputy Manager |  |
| Faris Kilani | IS Manager |  |

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Section 1: Executive Summary

* 1. **Introduction**

The following activities performed as a part of this testing exercise:

* Conduct Stress testing.
* Conduct Performance testing.
  1. **Scope**

During this assessment, the following points were included:

1. Front-End Performance assessment to Portal pages from Jordan over Ethernet.
2. Back-End Performance assessment to Portal pages from Jordan over Ethernet.
3. Stress testing through virtual users doing proposed scenarios that cover portal pages and services.
   1. **Definitions**

**Time to display:** Total time the application took to be fully loaded.

**Time to first byte:** Measures the duration from the user or client making an HTTP request to the first byte of the page being received.

**Time to last Byte:** Measures the delay between the request sent by the browser and the receiving of the last byte of the related response.

**Time to connect:** Number of seconds that elapse between the point when a client sends an association packet and the moment when the client can successfully move data which depends on the network speed.

**Receiving Time:** Provides the time of last response after the last byte being sent.

**Time to start render:** Refers to the time it takes for a website or web app to load enough that the user can interact with the page.

**Time to interact:** The time where the user can interact with the page.

* 1. **Summary of Findings**

|  |  |  |
| --- | --- | --- |
| 500 Concurrent Users | 300 Concurrent Users | 100 Concurrent Users |
|  |  |  |
|  |  |  |

Section 2: Back-End Performance Testing

This section of the report contains detailed Back-End performance metrics information, which was identified during the assessment phase from multiple locations over many technologies.

* 1. **Performance test from Jordan**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Connection Technology** | **URL** | **Time to First Byte** | **Time to Last Byte** | **Time to Connect** | **Receiving Time (relates to Time to Last Byte)** |
| Ethernet | https://example.com/ | 176ms | 501ms | 5ms | 510ms |

Section 3: Front-End Performance Testing

This section of the report contains detailed Front-End performance metrics information, which was identified during the assessment phase from multiple locations over many technologies.

**3.1 Performance test from Jordan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Connection Technology** | **URL** | **Time to Start Render** | **Time to Display** | **Time to Interact** |
| Fiber | https://example.com/ | 184ms | 515ms | 478ms |

Section 4: Stress Testing

This section of the report contains detailed statics about stress test, which was performed over fiber from Jordan for over 55 users.

* 1. **Results summary**

The stress test in this section was conducted for 55 users to show normal behavior.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **Name** | <Service Name> | | **Start date** | Oct 24th, 2024, 03:35:00 PM | | **End date** | Oct 24th, 2024, 03:45:00 PM | | **Duration** | 00:10:00 | | **Load Policy** | The population is ramp up from 5 users adding 5 users every 10.0 seconds, to a maximum of 55 users. | |  |

* 1. **Statistics Summary**

The stress test in this section was conducted for a sample of 55 users to show normal behavior.

|  |  |  |  |
| --- | --- | --- | --- |
| **Total pages** | 8181 | **Average pages/s** | 13 |
| **Total requests** | 286358 | **Average requests/s** | 466 |
| **Total users launched** | 55 | **Average Request response time** | 0.116 s |
| **Total iterations completed** | 1383.37 | **Average Page response time** | 0.0033 s |
| **Total throughput** | 0.058 GB | **Average throughput** | 11760.84 Kb/s |
| **Total request errors** | 54.41 | **Error rate** | 0.02% |

* 1. **Statistics summary Per Page**

This section contains each page behavior, and shows the statics per page when conduct 100, 300 and 500 concurrent users load.

* 100 concurrent:

Time to finalize the Sample took around 3 minutes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Label** | **# Samples** | **Average Response Time** | **Error %** | **Throughput** | **Received KB/sec** | **Sent KB/sec** | **Avg. Bytes** |
| TOTAL | 102408 | 211 | 0.01% | 134.0373 | 3275.23 | 108.82 | 25021.7 |

* 300 Concurrent:

Time to finalize the Sample took around 17 minutes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Label** | **# Samples** | **Average Response Time** | **Error %** | **Throughput** | **Received KB/sec** | **Sent KB/sec** | **Avg. Bytes** |
| TOTAL | 282316 | 650 | 0.07% | 288.8075 | 7045.97 | 234.31 | 24982.3 |

* 500 Concurrent:

Time to finalize the Sample took around 27 minutes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Label** | **# Samples** | **Average Response Time** | **Error %** | **Throughput** | **Received KB/sec** | **Sent KB/sec** | **Avg. Bytes** |
| TOTAL | 404563 | 1236 | 0.13% | 268.445 | 6537.68 | 217.61 | 24938.4 |