

## ANNEX 5.9: e-service Performance KPI's

The below stated MODEE KPIs values to be achieved over internet for non-cached pages, cached numbers should be much less, also many on the numbers depends on gateway bandwidth at MODEE. The below sections act as the accepted thresholds for all MODEE developed websites and vendor should assure they are in comply with these guidelines before requesting Performance and stress test from MODEE.

| Performance Metrics for E-services Criteria / Element            | Description   | Value / Measurement  |
|--|---|--|
| Time to First Byte   | Time elapsed for the first byte of a website to make it to the visitor's browser  | Less than 3 sec  |
| Time to Last Byte  | Time elapsed when every bite of a website has made it to the visitor's browser  | Less than 6-9 sec  |
| Time to Connect  | Time elapsed from initial request to when the connection between the visitor's browser and an origin server is established  | Less than 2 sec  |
| Page Load Time ( for both E-services and Informational Wesbites) | Page load time is the average amount of time it takes for a page to appear on your client's screen. To measure page load time, you should be testing website speed using available tools. | Largest Concertful Paint (LCP): should occur within 3 seconds of when the page first starts loading.<br>First Input Delay (FID): pages should have a FID of 200 milliseconds or less.<br>Cumulative Layout Shift (CLS): pages should maintain a CLS of 0.1. or less. |
| Time to Start Render   | Time elapsed when the first visible element appears on the blank page   | Less than 6 sec  |
| Throughput:  | The quantity of useful work   | [15 request/second]  |

## Content Complexity Metrics for E-services

| Criteria / Element  | Description   | Value / Measurement        |
|---------------------|---|----------------------------|
| Capacity            | The capability of the newer system to handle a number of simultaneous requests from the network for the application and the volume of data that it can handle from each of the users (Internal users through the LAN as well as external users through the internet/ dedicated WAN). In addition to the H/W capacity such as processing capability of all servers including DB, Apps. [CPU Utilization: 80%, Memory Utilization: 80%. |                            |
| <b>Weight Basis</b> |   |                            |
| <b>Page Weight</b>  | Total weight of assets including requests, domains, HTML, JavaScript, CSS, images, media and others   | Not exceeding 2 – 4.5 MB   |
| <b>JS Weight</b>    | Weight of Java Scripts  | Not exceeding 1600 KB      |
| <b>CSS Weight</b>   | Weight of Cascading Style Sheets  | Not exceeding 1800 KB      |
| <b>Image Weight</b> | Weight of site images   | Not exceeding 1.75- 2.5 MB |
| <b>Count Basis</b>  |   |                            |
| <b>Asset Count</b>  | Total number of assets including requests, domains, HTML, JavaScript, CSS, images, media and others   | Not more than 100          |
| <b>Image Count</b>  | Images count in a site  | Less than 50               |

- For Informative websites that need to have higher asset resources CDN network should be used.
- For any web services that used Video asset CDN network should be used.

## Site Availability and Access Metrics:

| Criteria / Element                          | Description  | Value / Measurement   |
|---|--|---|
| <b>Uptime (Availability) in stress test</b> | System availability uptime vs. system downtime within Stress test        | 99 %  |
| <b>Active Users</b>                         | The number of concurrent users that the website should be handled during | The number of concurrent users will be determined during the project initiation |

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|--|--|--|
|  | the load test, with lowest error rate ratio. | phase. If not mentioned, the default value will be 200 users.<br>Error rate less than 0.9% |
|--|--|--|