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 byte 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. First Input Delay (FID): pages should have a FID of 200 milliseconds or less. 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%.	
Weight Basis		
Page Weight	Total weight of assets including requests, domains, HTML, JavaScript, CSS, images, media and others	Not exceeding 2 – 4.5 MB
JS Weight	Weight of Java Scripts	Not exceeding 1600 KB
CSS Weight	Weight of Cascading Style Sheets	Not exceeding 1800 KB
Image Weight	Weight of site images	Not exceeding 1.75- 2.5 MB
Count Basis		
Asset Count	Total number of assets including requests, domains, HTML, JavaScript, CSS, images, media and others	Not more than 100
Image Count	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

Uptime (Availability) in stress test	System availability uptime vs. system downtime within Stress test	99 %
Active Users	The number of concurrent users that the website should be handled during the load test, with lowest error rate ratio.	The number of concurrent users will be determined during the project initiation phase. If not mentioned, the default value will be 200 users. Error rate less than 0.9%