# Appendix D: System Performance Requirements

## Transaction Times

Table 1 lists the performance requirements for different types of transactions.

Command transaction times are measured from operator action until visual response or operation completion. Command transactions include both administrative transactions (e.g., logging in/out of the system, transitioning between modules) and operational transactions (e.g., entering data, searches, uploading reports into the System).

Within the system, query transactions are measured from the time the operator submits the query until the time the operator receives query results. Extended query transactions include queries returning a large amount of data or queries run for the purpose of report creation.

Table 1: Expected Transaction Times

|  |  |
| --- | --- |
| **Activity** | **Maximum Response Time** |
| Command transactions | 1 second |
| Command transactions with validation | 3 seconds |
| Database queries | 5 seconds |
| Extended queries (e.g., querying a database outside of the requested solution) | 5 seconds |

**System Availability**

The *system* will be available 99.95 percent of the time (assuming the user internet connection is operating as expected). The following specification defines both System availability and the method by which it is calculated, as it is used in other sections of this RFP:

1. System availability will be expressed as a percentage of the maximum expected availability over a given period. The System must be available seven days per week, 24 hours per day.
2. Scheduled down time for System upgrades will not be construed as Hours System Unavailable.
3. The percentage availability for any period will be calculated as follows:

(Total Hours in Period – Hours System Unavailable) x 100

Total Hours in Period

## Ongoing System Performance

The following specifications describe the performance requirements for the Proposer’s System following formal acceptance of the System and throughout the life of the Contract:

1. The System must remain operational and available for use by meeting the required System response times and availability.
2. The functionality provided should meet the requirements of this system throughout the lifetime of the system, as well as continually improve on existing functionality.
3. The System must accommodate all volumes and other applicable sizing parameters specified in the RFP.
4. All files and tables can be updated on-line without adversely affecting System Performance.
5. Necessary back-ups can be done online without adversely affecting System operations and without lockouts for updates.
6. The System can complete queries to interfaced databases without tying up or locking up the workstations.

In the event that the System fails to meet any requirements of this RFP after Final System Acceptance during the warranty period as well as over the lifetime of the Contract, the Proposer must take appropriate steps to correct the problem and bring the System back into compliance with the performance and reliability requirements at no cost to DOE.