

time of all tasks in the scan task pool, the server selects the shortest time T_{MIN} to the current time and the longest time T_{MAX} from the current time, and calculates the time interval of two times. The server substitutes the aforementioned data into formula (6) to calculate the scan time characteristic value E_i of the vulnerability scan task, which indicates the weight of the time interval during which the vulnerability scan task is not executed in all tasks of the scan task pool.

$$[0075] \quad E_i = \begin{cases} \frac{T_{MAX} - T_i}{T_{MAX} - T_{MIN}}, T_i > 0 \\ 1, T_i = 0 \end{cases} \quad (6)$$

[0076] Wherein, $T_i \in [0, \infty)$, $E_i \in [0,1]$, the closer the value of E_i is to 1, the longer the vulnerability scan task is not scanned, correspondingly, the higher the execution priority of the vulnerability scan task under the same conditions.

[0077] In one embodiment, the step 244 specifically includes following steps. A first time when the latest task content of the read vulnerability scan task is updated is acquired. A vulnerability scan task with the shortest task content update time interval and a vulnerability scan task with the longest task content update time interval are found in the scan task pool. An update time interval of the two found vulnerability scan tasks is calculated. The update time characteristic value is calculated according to the first time and the update time interval.

[0078] Specifically, it is assumed that the read vulnerability scan task is the i^{th} task in the scan task pool, and the latest content update time of the i^{th} task is represented by U_i . After acquiring the latest content update time of all the tasks in the scan task pool, the server selects the shortest time U_{MIN} to the current time and the longest time U_{MAX} from the current time, and calculates the time interval between the two times. The server substitutes the aforementioned data into formula (7) to calculate the update time characteristic value K_i of the vulnerability scan task, which indicates the weight of the time interval during which the content of the vulnerability scan task is not updated in all tasks of the scan task pool.

$$[0079] \quad K_i = \frac{U_i - U_{MIN}}{U_{MAX} - U_{MIN}} \quad (7)$$