Notations

Paper: Energy Efficient Geographical Load Balancing via Dynamic Deferral of Workload

Summarized by Huangxin Wang

notations	meaning
n	total number of data centers
M_i	computation capacity at data center i
τ	length of a time slot
D	relative deadline of a job
x_{idt}	the portion of released workload L_t that is assigned to be executed at data center i at time $t+d$
x_{it}	the workload assigned to be executed at time t to data center i
x_t	the total assignment at time t
z_{ijdt}	the amount of workload that is migrated at time t from data center i to j to be executed at time $t+d$
z_{ijt}	the amount of workload that is migrated from data center i to j at time t
y_{it}	workload executed at time t at data center i
$C_{it}(y_{it})$	the energy cost for executing workload y_{it} at data center i at time t
$\tilde{C}_{it}(y_{it})$	estimated energy cost for executing workload y_{it} at data center i at time t
$B_{ij}(z_{ijt})$	the energy cost for migrating workload z_{ijt} from data center i to data center j
u_{it}	the assigned (delayed) workload at time t at data center i
w_{it}	the executed workload at time t at data center i