

i-th GPU DRAM

i-th Zero-Copy

GASNet Mem

Calc New Currents

 w_i : RWE p_i : ROE w_i : ROE g_i : ROE w_i p_i s_i g_i All-
Shared
Nodes

Key

← Copy Operation

← - Reduction Operation

Valid Data Instance

Stale Data Instance

* Reduction Instance

Distribute Charge

 w_i : ROE p_i : RWE s_i : RdS g_i : RdS s_i^* g_i^* Reductions
from other
nodesCopies
to other
nodesCopies
from other
nodesCopies
to other
nodes

Update Voltage

 p_i : RWE s_i : RWE s_i g_i

Calc New Currents

 w_i : RWE p_i : ROE s_i : ROE g_i : ROE g_i