

Thermal zones hierarchy

Linux Plumbers Conference 2019 - Lisboa
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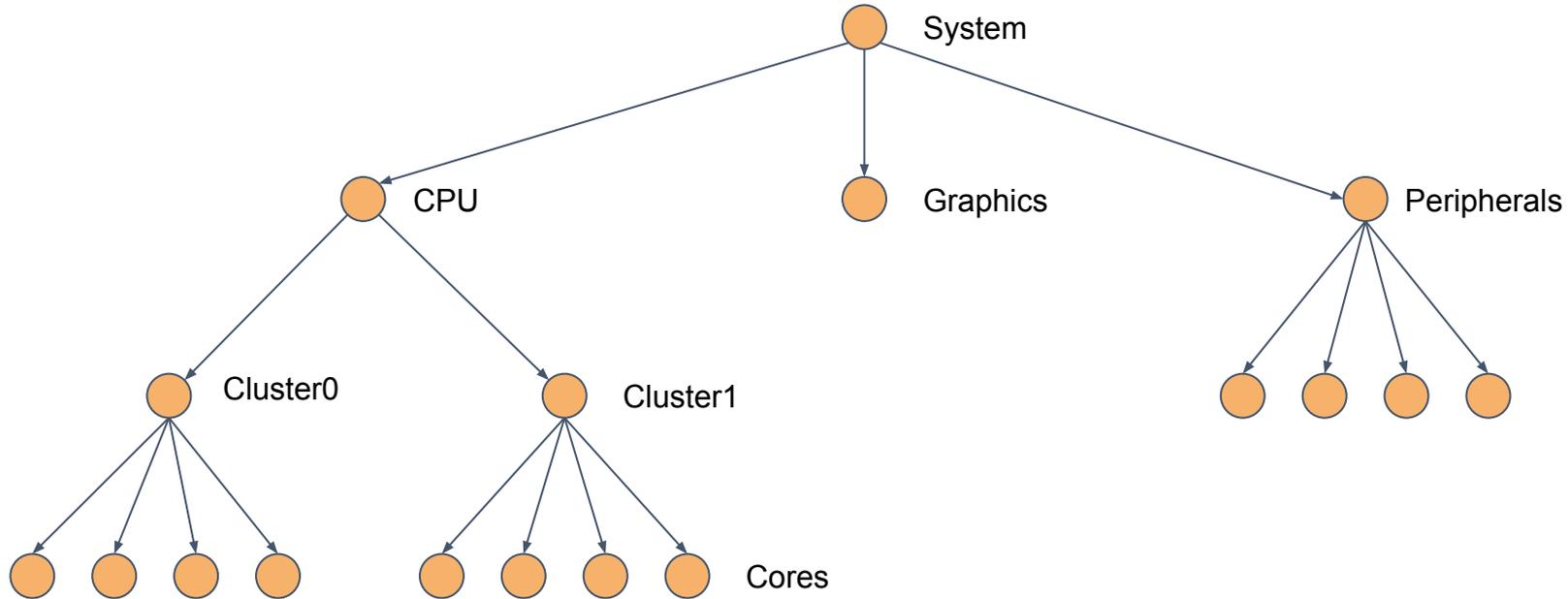
Yesterday	Today
1, rarely 2 thermal zones	More than <u>21</u> thermal zones

Feature	Why
Topology description	Close to reality representation Proximity sensor detection Hotspot detection
Centralized decision with a governor	Lot of thermal zones
Spanning sensors	When there are too few sensors

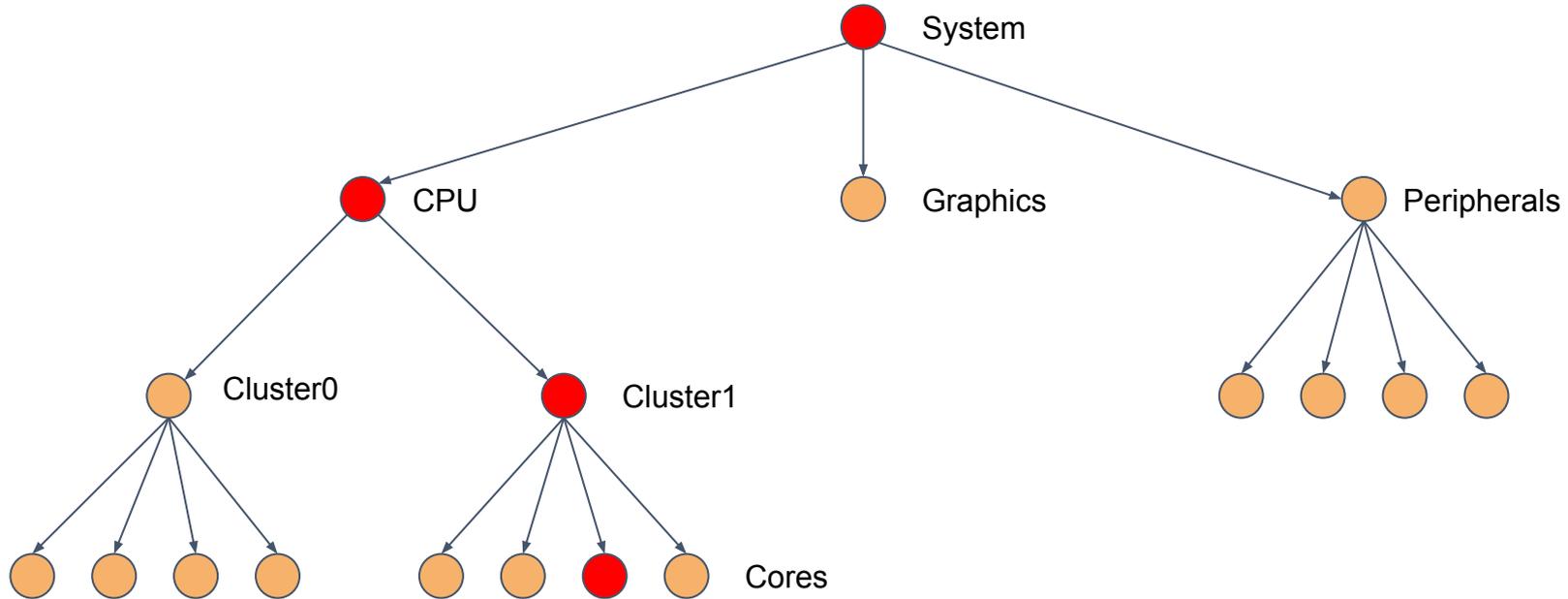
Representation: thermal zones hierarchy

- Today: Flat representation
- Proposal:
 - Tree representation:
 - Compatible with today representation
 - Representation of the thermal topology for the system
 - Gives a centralized view to a governor
 - Extend the semantic of the current framework:
 - Aggregation
 - Thermal zones can be without sensor, cooling device or governor
 - Thermal zones can have a weight

Topology description - close to reality

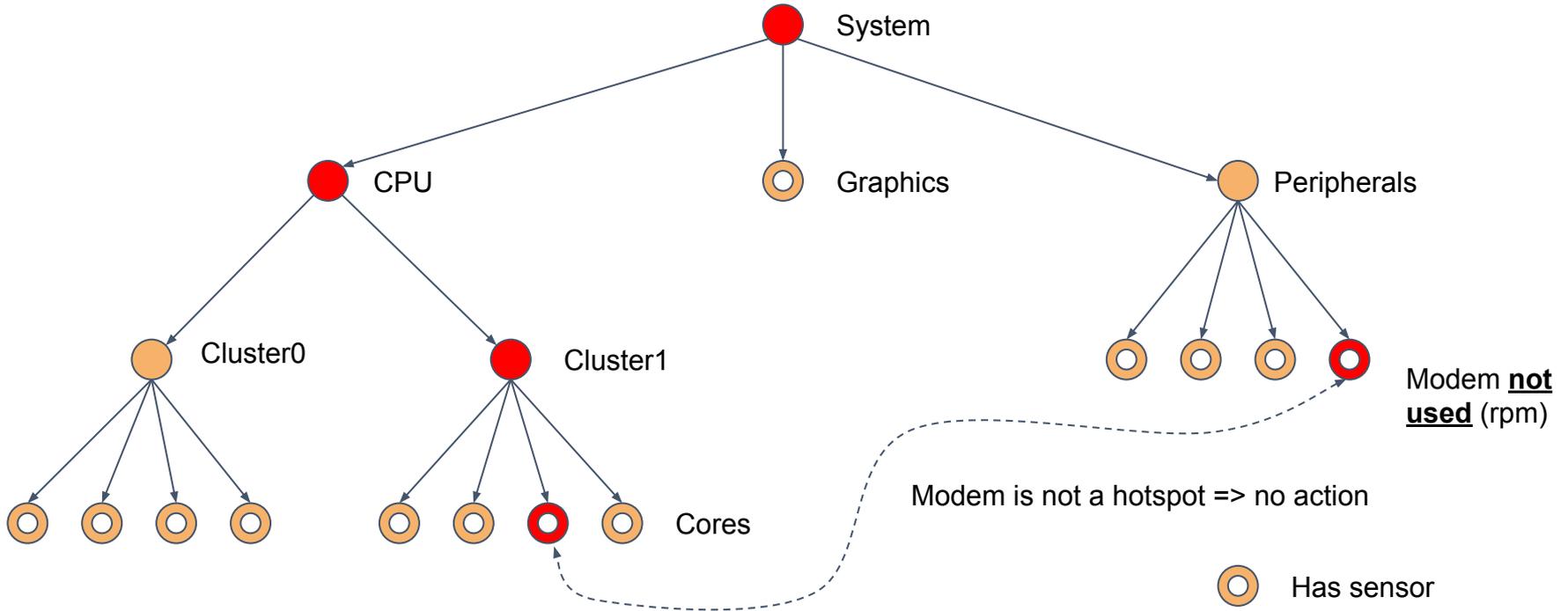


Topology description - hotspot

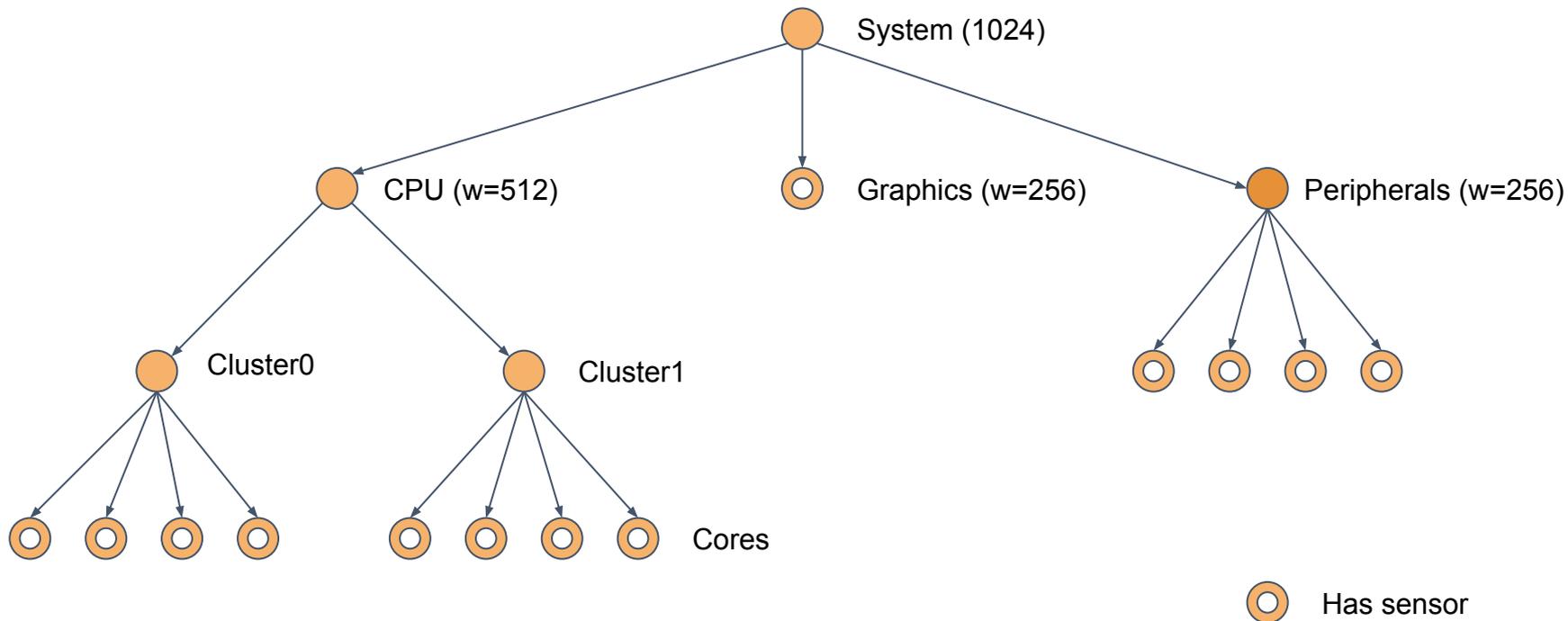


Hotspot = system.cpu.cluster1.core6

Topology description - proximity



Centralized topology-aware decision



Spanning sensor

