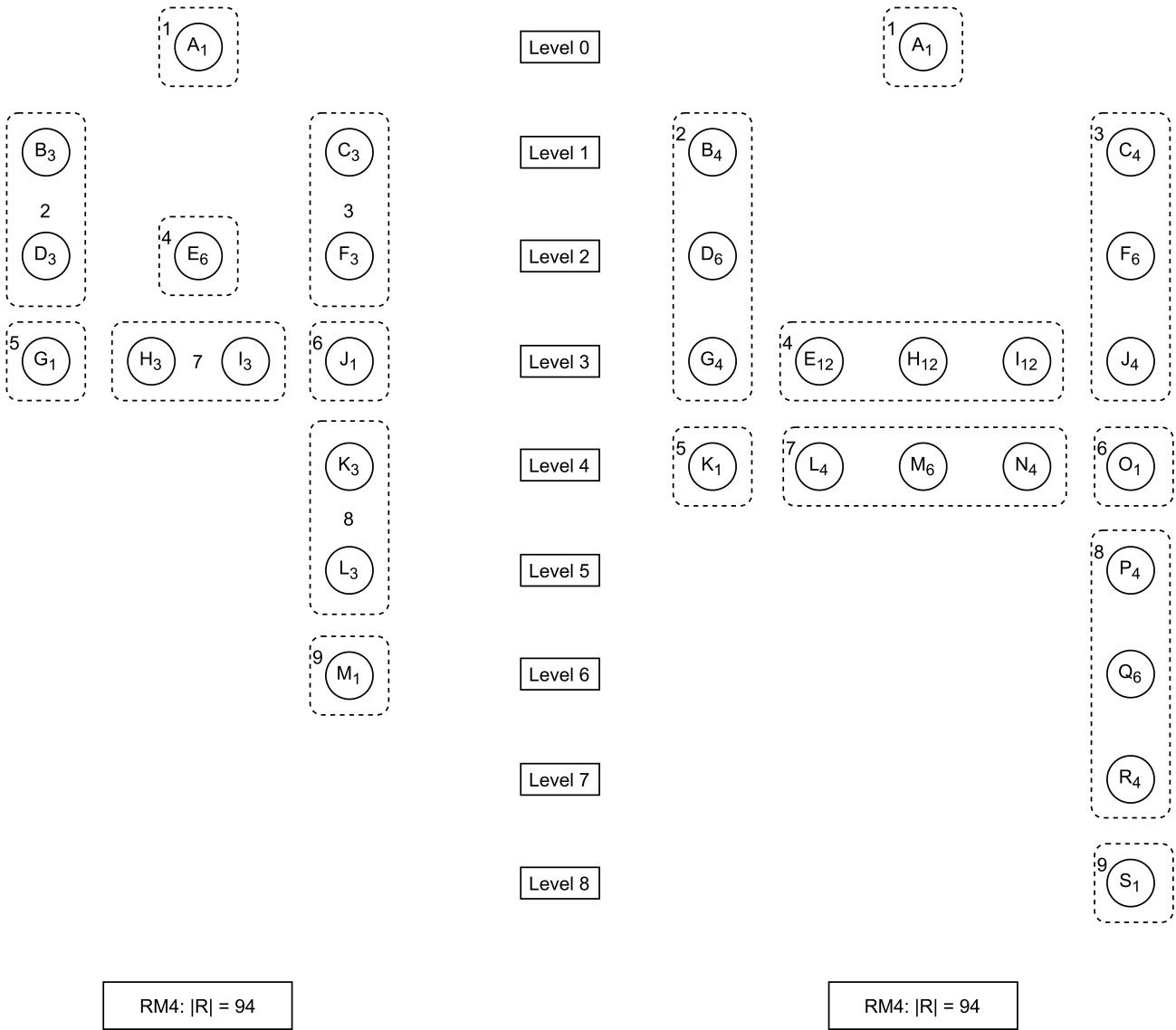


Transaction-Commit Classes and Configurations



Configurations Based on RM4

$$\text{Config1} = \forall R. \text{working}(R) \wedge \neg \text{aborted}(R) \wedge \neg \text{committed}(R) \wedge \neg \text{pending}(R)$$

$$\text{Config2} = \exists R. \text{working}(R) \wedge \neg \text{working}(R)$$

$$\forall R. \text{aborted}(R) \oplus \text{working}(R)$$

$$\forall R. \neg \text{committed}(R) \wedge \neg \text{pending}(R)$$

$$\text{Config3} = \exists R. \text{working}(R) \wedge \neg \text{working}(R)$$

$$\forall R. \text{pending}(R) \oplus \text{working}(R)$$

$$\forall R. \neg \text{aborted}(R) \wedge \neg \text{committed}(R)$$

$$\text{Config4} = \exists R. \text{working}(R) \wedge \text{pending}(R) \wedge \text{aborted}(R)$$

$$\forall R. \text{aborted}(R) \rightarrow \neg \text{working}(R)$$

$$\forall R. \text{working}(R) \rightarrow \neg \text{pending}(R)$$

$$\forall R. \text{pending}(R) \rightarrow \neg \text{aborted}(R)$$

$$\forall R. \neg \text{committed}(R)$$

$$\text{Config5} = \forall R. \text{aborted}(R) \wedge \neg \text{committed}(R) \wedge \neg \text{pending}(R) \wedge \neg \text{working}(R)$$

$$\text{Config6} = \forall R. \text{pending}(R) \wedge \neg \text{aborted}(R) \wedge \neg \text{committed}(R) \wedge \neg \text{working}(R)$$

$$\text{Config7} = \exists R. \text{pending}(R) \wedge \neg \text{pending}(R)$$

$$\forall R. \text{aborted}(R) \oplus \text{pending}(R)$$

$$\forall R. \neg \text{committed}(R) \wedge \neg \text{working}(R)$$

$$\text{Config8} = \exists R. \text{pending}(R) \wedge \neg \text{pending}(R)$$

$$\forall R. \text{committed}(R) \oplus \text{pending}(R)$$

$$\forall R. \neg \text{aborted}(R) \wedge \neg \text{working}(R)$$

$$\text{Config9} = \forall R. \text{committed}(R) \wedge \neg \text{aborted}(R) \wedge \neg \text{pending}(R) \wedge \neg \text{working}(R)$$
