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MODULE *Configuration*

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EXTENDS *Mastership*

INSTANCE *Naturals*

INSTANCE *FiniteSets*

LOCAL INSTANCE *TLC*

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Status constants

CONSTANTS

*ConfigurationInProgress*,  
*ConfigurationComplete*,  
*ConfigurationFailed*

CONSTANT *LogConfiguration*

ASSUME *LogConfiguration* ∈ BOOLEAN

A record of per-target configurations

VARIABLE *configuration*

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LOCAL *CurrentState*  $\triangleq$

[*configuration*  $\mapsto$  *configuration*,  
*target*  $\mapsto$  *target*,  
*mastership*  $\mapsto$  *mastership*,  
*nodes*  $\mapsto$  *node*]

LOCAL *SuccessorState*  $\triangleq$

[*configuration*  $\mapsto$  *configuration'*,  
*target*  $\mapsto$  *target'*,  
*mastership*  $\mapsto$  *mastership'*,  
*nodes*  $\mapsto$  *node'*]

LOCAL *Log*  $\triangleq$  INSTANCE *Log* WITH

*File*  $\leftarrow$  "Configuration.log",  
*CurrentState*  $\leftarrow$  *CurrentState*,  
*SuccessorState*  $\leftarrow$  *SuccessorState*,  
*Enabled*  $\leftarrow$  *LogConfiguration*

---

This section models the *Configuration* reconciler.

*ReconcileConfiguration*(*n*)  $\triangleq$

$\wedge$  *mastership.master* = *n*



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