$\overline{\qquad\qquad\text{MODULE } E2T \qquad\qquad}$

EXTENDS API

LOCAL INSTANCE $Naturals$

LOCAL INSTANCE $Sequences$

LOCAL INSTANCE $FiniteSets$

CONSTANT $Nodes$

CONSTANT OK, $Error$

ASSUME $\wedge\, IsFiniteSet(Nodes)$
$\qquad\qquad \wedge\, \forall\, n \in Nodes : n \in \text{STRING}$

$\overline{\qquad\qquad\text{MODULE } Store \qquad\qquad}$

$CreateSubscription(s) \triangleq [status \mapsto OK]$

$DeleteSubscription(s) \triangleq [status \mapsto OK]$

$Init \triangleq \text{TRUE}$

$Next \triangleq \text{FALSE}$

$\underline{\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad}$

LOCAL $Store \triangleq$ INSTANCE $Store$

$\overline{\qquad\qquad\text{MODULE } NB \qquad\qquad}$

$HandleSubscribeRequest(c, m) \triangleq$
$\quad \wedge\, \text{LET } r \triangleq Store!CreateSubscription(m)$
$\qquad \text{IN} \quad API!E2T!Server!Send!SubscribeResponse(c, r)$
$\quad \wedge\, \text{UNCHANGED } \langle\rangle$

$HandleUnsubscribeRequest(c, m) \triangleq$
$\quad \wedge\, \text{LET } r \triangleq Store!DeleteSubscription(m)$
$\qquad \text{IN} \quad API!E2T!Server!Send!UnsubscribeResponse(c, r)$
$\quad \wedge\, \text{UNCHANGED } \langle\rangle$

$HandleMessage(c, m) \triangleq$
$\quad \wedge\, \vee\, API!E2T!Server!Receive!SubscribeRequest(c, HandleSubscribeRequest)$
$\qquad \vee\, API!E2T!Server!Receive!UnsubscribeRequest(c, HandleUnsubscribeRequest)$
$\quad \wedge\, \text{UNCHANGED } \langle\rangle$

$Init \triangleq$
$\quad \wedge\, \text{TRUE}$

1

$Next \triangleq$
 $\lor \exists\, s \in Nodes : API!E2T!Server!Serve(s)$
 $\lor \exists\, s \in API!E2T!Servers : API!E2T!Server!Stop(s)$
 $\lor \exists\, c \in API!E2T!Connections :$
  $\lor API!E2T!Server!Receive!SubscribeRequest(c, HandleSubscribeRequest)$
  $\lor API!E2T!Server!Receive!UnsubscribeRequest(c, HandleUnsubscribeRequest)$

LOCAL $NB \triangleq$ INSTANCE NB

———————————————— MODULE SB ————————————————

$HandleE2SetupRequest(c, m) \triangleq$
 $\land API!E2AP!Server!Send!E2SetupResponse(c, [status \mapsto OK])$
 $\land$ UNCHANGED $\langle\rangle$

$Init \triangleq$
 $\land$ TRUE

$Next \triangleq$
 $\lor \exists\, s \in Nodes : API!E2AP!Server!Serve(s)$
 $\lor \exists\, s \in API!E2AP!Servers : API!E2AP!Server!Stop(s)$
 $\lor \exists\, c \in API!E2AP!Connections :$
  $\lor API!E2AP!Server!Receive!E2SetupRequest(c, HandleE2SetupRequest)$

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LOCAL $SB \triangleq$ INSTANCE SB

$Init \triangleq$
 $\land SB!Init$
 $\land NB!Init$
 $\land Store!Init$

$Next \triangleq$
 $\lor SB!Next$
 $\lor NB!Next$
 $\lor Store!Next$

\ * Modification History
\ * Last modified *Fri Aug* 13 15:49:45 *PDT* 2021 by *jordanhalterman*
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