State machine for QNR QoS NSLP node

Notations: See QoS_NSLP_state_machine_info.doc

Open issue: Tear down installed QoS states
Further considerations: Session binding

(rx_RESERVE)&&(!RII)&&(RMF="Not_AVAIL")
tx_RESPONSE(RSN,E_SPEC="0x04?")
Send info to Appl.
*3

(rx_RESERVE(RII))&&(RMF="Not_AVAIL")
tx_RESPONSE(RII,E_SPEC="0x04?")
Send info to Appl.

(rx_QUERY)&&(RII)
Tx_RESPONSE(RII)

(rx_RESERVE)&&(!RII)&&(RMF="NO_A")
Tx_RESPONSE(RSN, E_SPEC="0x04?")

Rx_RESERVE
Refresh QoS state
If(ACK="On")
Tx_RESPONSE(RSN, E_SPEC="0x02?")

*1
(tg_QUERY)&&(!setRII)
Tx_QUERY(w/oRII)

(rx_RESERVE(RII))&&(RMF="AVAIL")
Install QoS state
Tx_RESPONSE(RII, E_SPEC="0x02?")
*2

WAITRESV

IDLE

**QoS state
installed**

*4
rx_RESPONSE(E_SPEC="ERROR")
Send info to Appl.

(rx_RESERVE)&&(!RII)&&(RMF="AVAIL")
Install QoS state
Tx_RESPONSE(RSN, E_SPEC="0x02?")

(TIMEOUT_WaitResp)&&(MaxRetry)
Send info to Appl.

TIMEOUT_StateLifetime
Delete QoS state
*5
Rx_RESERVE(Ton)
Delete QoS state

(rx_RESERVE(RII))&&(RMF="NO_A")
Tx_RESPONSE(RII, E_SPEC="0x04?")

TIMEOUT_WaitResp
Tx_QUERY(w/oRII)

(rx_RESERVE)&&(!RII)&&(RMF="AVAIL")
Install QoS state
Tx_RESPONSE(RSN, E_SPEC="0x02?")

(rx_RESERVE(RII))&&(RMF="AVAIL")
Install QoS State
Tx_RESPONSE(RII)

*1. Initiation of Receiver-side reservation
*2. Successful Reservation with& without response request from the QNI side
*3. Unsuccessful Reservation with & without response request from the QNI side.
*4. How to signal unsuccessful reservation for Receiver initiated reservation(No RII is included, received Response(RSN) should not be forwarded.
*5. We assume that handling of QoS state lifetime expiration event is based on the local policy of the node. NOTIFY/Reserve(Ton) messages might be sent to other peers. These issues are not described in the QoS NSLP draft.
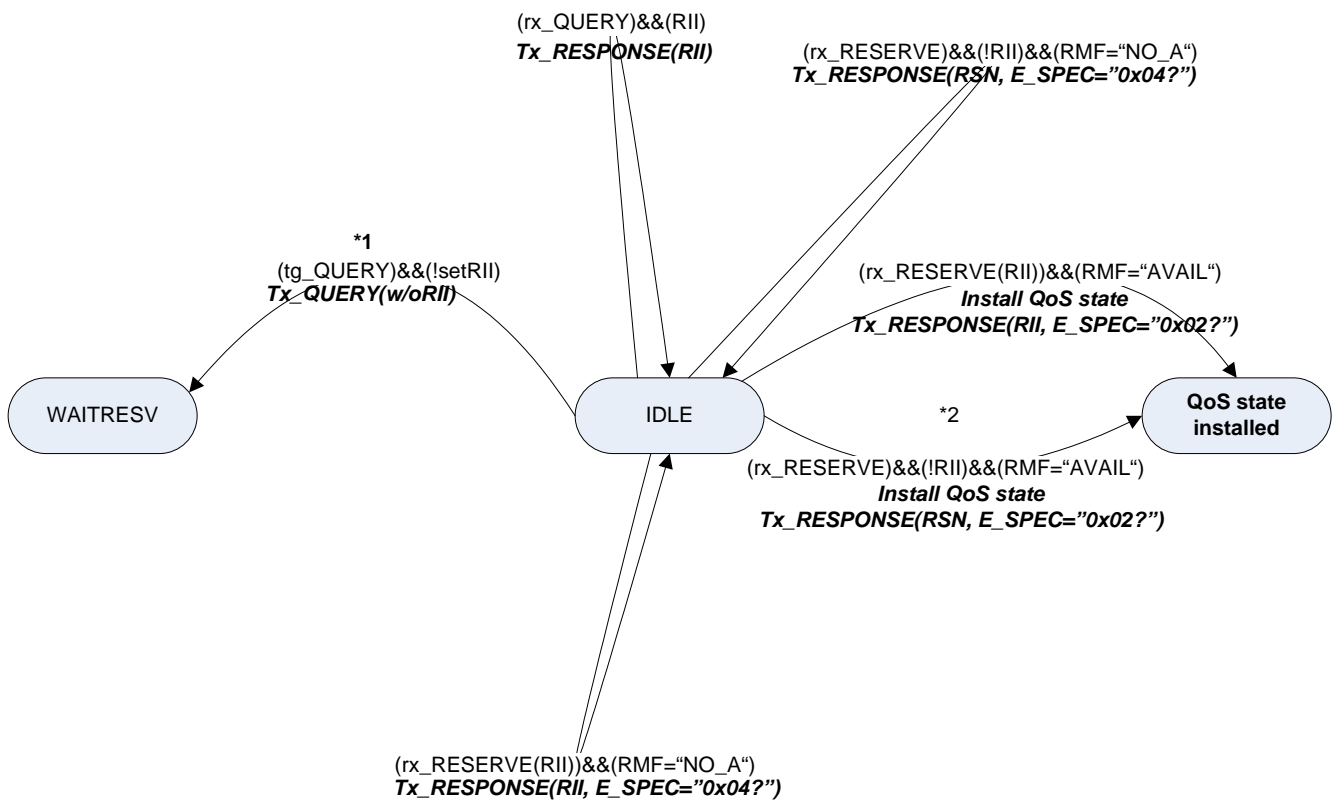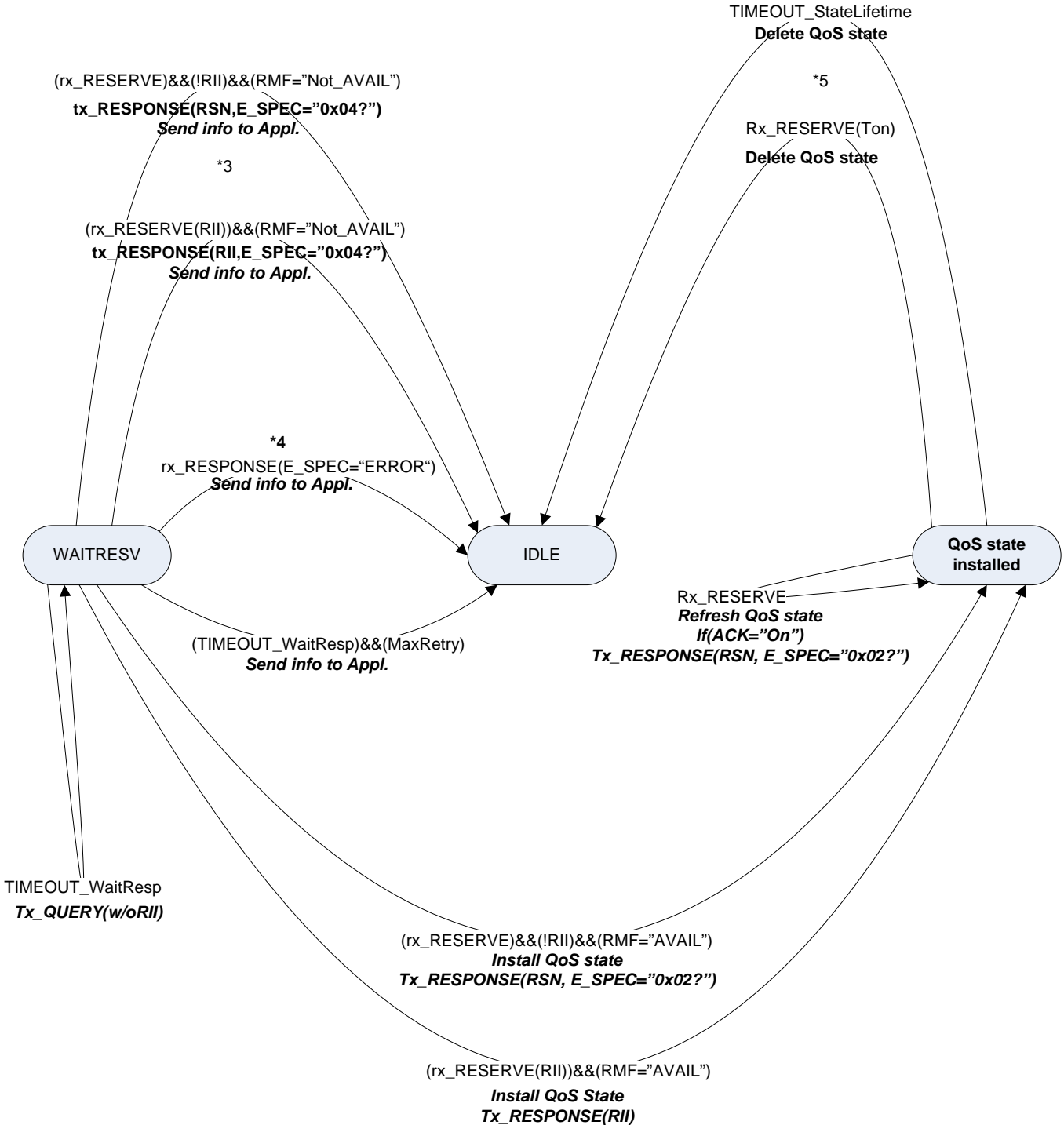
State machine for QNR QoS NSLP node
"IDLE" state

Notations: See QoS_NSLP_state_machine_info.doc
Open issue: Tear down installed QoS states
Further considerations: Session binding

(rx_QUERY)&&(RII)
Tx_RESPONSE(RII)

(rx_RESERVE)&&(!RII)&&(RMF="NO_A")
Tx_RESPONSE(RSN, E_SPEC="0x04?")

*1
(tg_QUERY)&&(!setRII)
Tx_QUERY(w/oRII)

(rx_RESERVE(RII))&&(RMF="AVAIL")
Install QoS state
Tx_RESPONSE(RII, E_SPEC="0x02?")

WAITRESV

IDLE

*2

QoS state installed

(rx_RESERVE)&&(!RII)&&(RMF="AVAIL")
Install QoS state
Tx_RESPONSE(RSN, E_SPEC="0x02?")

(rx_RESERVE(RII))&&(RMF="NO_A")
Tx_RESPONSE(RII, E_SPEC="0x04?")

*1. Initiation of Receiver-side reservation
*2. Successful Reservation with& without response request from the QNI side

State machine for QNR QoS NSLP node
"WAITRESV" state, "QoS state installed" state

Notations: See QoS_NSLP_state_machine_info.doc
Open issue: Tear down installed QoS states
Further considerations: Session binding

TIMEOUT_StateLifetime
Delete QoS state

*5

Rx_RESERVE(Ton)

Delete QoS state

(rx_RESERVE)&&(!RII)&&(RMF="Not_AVAIL")

tx_RESPONSE(RSN,E_SPEC="0x04?")
Send info to Appl.

*3

(rx_RESERVE(RII))&&(RMF="Not_AVAIL")
tx_RESPONSE(RII,E_SPEC="0x04?")
Send info to Appl.

*4
rx_RESPONSE(E_SPEC="ERROR")
Send info to Appl.

WAITRESV

IDLE

**QoS state
installed**

Rx_RESERVE
*Refresh QoS state
If(ACK="On")
Tx_RESPONSE(RSN, E_SPEC="0x02?")*

(TIMEOUT_WaitResp)&&(MaxRetry)
Send info to Appl.

TIMEOUT_WaitResp
Tx_QUERY(w/oRII)

(rx_RESERVE)&&(!RII)&&(RMF="AVAIL")
***Install QoS state
Tx_RESPONSE(RSN, E_SPEC="0x02?")***

(rx_RESERVE(RII))&&(RMF="AVAIL")
***Install QoS State
Tx_RESPONSE(RII)***

*3. Unsuccessful Reservation with & without response request from the QNI side.
*4. How to signal unsuccessful reservation for Receiver initiated reservation(No RII is included, received
Response(RSN) should not be forwarded.
*5. We assume that handling of QoS state lifetime expiration event is based on the local policy of the node.
NOTIFY/Reserve(Ton) messages might be sent to other peers. These issues are not described in the QoS
NSLP draft.