the present disclosure that various modifications to the disclosed implementations can be made while remaining within the scope of this disclosure.

In one implementation, a method performed by a wireless communication device includes receiving, by a wireless communication device, a response for link recovery, from a wireless communication node; and determining, by the wireless communication device according to a downlink reference signal (RS) associated with a type of control resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

The method wherein at least one of: the downlink RS is indicated by a random access preamble signaling or a medium access control control element (MAC-CE) signaling, or the downlink RS is from a set of candidate RSes associated with the downlink signal.

The method comprising determining, by the wireless communication device, a beam state of an uplink signal according to: a physical random access channel (PRACH) transmission that most recently occurred, or the downlink RS.

The method wherein at least one of the beam state of the uplink signal or the beam state of the downlink signal comprises a spatial filter, for a primary cell (PCell), the beam state of the uplink signal is determined according to the PRACH transmission that most recently occurred, for a secondary cell (SCell) or a cell with at least one of: more than one RS sets for beam failure detection or more than one candidate RS sets, the beam state of the uplink signal is determined according to the downlink RS, or the beam state of the uplink signal is determined according to the downlink RS from a set of candidate RSes associated with the uplink signal.

The method wherein the downlink signal comprises at least one of: a physical downlink control channel (PDCCH), a physical downlink shared channel (PDSCH), or a channel state information reference signal (CSI-RS).

according to: a physical random access channel (PRACH) transmission that most recently occurred.

The method wherein a beam state indicating a unified transmission configuration indicator (TCI) state for a serving cell is provided or enabled.

In another implementation, a method performed by a wireless communication node includes sending, by a wireless communication node to a wireless communication device, a response for link recovery; wherein the response for link recovery causes the wireless communication device to determine, according to a downlink reference signal (RS) associated with a type of control resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

In another implementation, a wireless communication device includes at least one processor configured to receive, via a receiver, a response for link recovery, from a wireless communication node; and determine, according to a downlink reference signal (RS) associated with a type of control resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

The above and other aspects and their implementations are described in greater detail in the drawings, the descriptions, and the claims.

## BRIEF DESCRIPTION OF THE DRAWINGS

Various example implementations of the present solution are described in detail below with reference to the following figures or drawings. The drawings are provided for purposes of

illustration only and merely depict example implementations of the present solution to facilitate the reader's understanding of the present solution. Therefore, the drawings should not be considered limiting of the breadth, scope, or applicability of the present solution. It should be noted that for clarity and ease of illustration, these drawings are not necessarily drawn to scale.

FIG. 1 illustrates an example cellular communication network in which techniques and other aspects disclosed herein may be implemented, in accordance with an implementation of the present disclosure.

## CLAIMS

1. A method comprising:

receiving, by a wireless communication device, a response for link recovery, from a wireless communication node; and

determining, by the wireless communication device according to a downlink reference signal (RS) associated with a type of control resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

2. The method of claim 1, comprising:

determining, by the wireless communication device, a beam state of an uplink signal according to the downlink RS.

3. The method of claim 2, wherein at least one of the beam state of the uplink signal comprises a spatial filter.

4. The method of claim 2, comprising:

determining, by the wireless communication device, a power control parameter of the uplink signal, the power control parameter comprising at least one of: a pathloss RS, an open-loop parameter, or a closed-loop index.

5. The method of claim 4, wherein the power control parameter comprises a pathloss RS, comprising:

determining, by the wireless communication device, the pathloss RS according to:

the downlink RS, or

the downlink RS from a set of candidate RSes associated with the downlink signal.

6. The method of claim 4, comprising:

determining, by the wireless communication device, the open-loop parameter according to an open-loop parameter with a specific index, wherein the specific index is a lowest value.

7. The method of claim 4, wherein the power control parameter comprises a closed-loop index, comprising:

determining, by the wireless communication device, the closed-loop index according to a specific value, wherein the specific value is a lowest value.

8. The method of claim 1, wherein the defined number of time units is 28.

9. The method of claim 2, wherein the downlink signal or the uplink signal, and a set of candidate RSs associated with the downlink signal or the uplink signal, are associated with the type of CORESETs.

10. The method of claim 9, wherein the type of CORESETs is associated with at least one of:

a transmission configuration indicator (TCI) state,

a physical downlink control channel (PDCCH),

a first type of physical downlink shared channel (PDSCH),

a first type of physical uplink shared channel (PUSCH),

a channel state information RS (CSI-RS), or

a sounding RS (SRS) resource.

11. The method of claim 10, wherein the first type of PDSCH is scheduled by a first PDCCH, wherein a first CORESET associated with the first PDCCH corresponds to the type of CORESETs.

12. The method of claim 10, wherein the first type of PUSCH is scheduled by a first PDCCH, wherein a first CORESET associated with the first PDCCH corresponds to the type of CORESETs.

13. The method of claim 10, wherein the CSI-RS or a group of CSI-RSes is indicated by a command signaling to share one or more beam states that are same as those of a first PDCCH.

14. The method of claim 10, wherein the SRS resource or a group of SRSes is indicated by a command signaling to share one or more beam states that are same as those of a first PUCCH or a first PUSCH.

15. A method comprising:

sending, by a wireless communication node to a wireless communication device, a response for link recovery;

wherein the response for link recovery causes the wireless communication device to determine, according to a downlink reference signal (RS) associated with a type of control resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

16. A wireless communication node, comprising:

at least one processor configured to:

send, via a transmitter to a wireless communication device, a response for link recovery;

wherein the response for link recovery causes the wireless communication device to determine, according to a downlink reference signal (RS) associated with a type of control resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

17. A wireless communication device, comprising:

at least one processor configured to:

receive, via a receiver, a response for link recovery, from a wireless communication node; and

determine, according to a downlink reference signal (RS) associated with a type of control

resource set (CORESET) configured with a CORESET pool identifier (ID), a beam state of a downlink signal associated with the type of CORESET, a defined number of time units after receiving the response for link recovery.

18. The wireless communication device of claim 17, wherein the at least one processor is configured to:

determine a beam state of an uplink signal according to the downlink RS.

19. The wireless communication device of claim 18, wherein at least one of the beam state of the uplink signal comprises a spatial filter.