CLAIMS

~~What is claimed is:~~

1.——A method for wireless communications comprising:

receiving, from a user equipment (UE), a request to form a coordinated multi-point (CoMP) cluster set of transmit/receive points (TRPs) for ~~a user equipment (UE);~~

the UE; in response to receiving the request to form a CoMP cluster set of TRPs for the UE, determining the CoMP cluster set of TRPs for the UE based on at least a delay budget and a reliability requirement, and one or more of configuration information and measurements~~; and~~

~~coordinating communications for the UE using the CoMP cluster set.~~ in addition to the delay budget and the reliability requirement, wherein the configuration information and measurements includes one or more of current channel measurements or long term channel measurements, wherein the one or more current channel measurements or long term channel measurements include one or more of path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE; and coordinating communications for the UE using the CoMP cluster set.

2.——The method of claim 1, wherein the request is received from one or more of the UE, TRP, entity in a radio access network (RAN), central unit, distributed unit, entity in a core network or an operations and management (OAM) entity.

3.——The method of claim 1~~ or 2~~, wherein the delay budget is based on one or more of end-to-end latency requirements, jitter requirements, round-trip-time requirements or survival time requirements.

4.——The method of ~~any previous~~ claim 1~~-3~~, wherein the reliability requirement is based on one or more of packet error rate (PER) requirement or communication service availability requirement.

5.——The method of ~~any previous~~ claim 1~~-4~~, wherein the reliability requirement is based on, on a per packet basis, one or more of a survival time associated with a radio

bearer used for communication, number of packet errors of one or more preceding packets or number of consecutive packet errors in preceding packets.

6. The method of ~~any previous claims~~claim 1~~-5~~, further comprising:

adjusting the CoMP cluster set of TRPs based on one or more of a number of allowed subsequent re-transmissions to the UE, configuration information and measurements, delay budget or reliability requirement.

7. The method of claim 6, wherein the CoMP cluster set of TRPs is determined using an adjustment based on one or more of a slot structure, UE processing delays, TRP processing delays or backhaul latency.

8. The method of claim 7, wherein the adjustment is a decrease in number of TRPs in the CoMP cluster set when the delay budget allows for one or more subsequent re-transmissions.

9. The method of claim 7, wherein the adjustment is an increase in number of TRPs in the CoMP cluster set when the delay budget does not allow for one or more subsequent re-transmissions.

~~10. The method of claim 6, wherein the configuration information and measurements includes one or more of current channel measurements or long term channel measurements, wherein the current channel measurements include one or more of path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE, and wherein the long term channel measurements include one or more of past path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE.~~

~~11. The method of claim 10~~10. The method of claim 1, wherein the CSI includes one or more of a channel quality indicator (CQI), precoding matrix indicator (PMI), precoding type indicator (PTI), or rank indication (RI).

~~12.~~ 11. The method of claim ~~10~~1, wherein the synchronization signal measurements include one or more of Primary Synchronization Signal (PSS) measurements or Secondary Synchronization Signal (SSS) measurements.

~~13.~~ 12. The method of claim ~~10~~1, wherein the reference signal measurements include one or more of reference signal received power (RSRP) measurements, reference signal received quality (RSRQ) measurements or received signal strength indicator (RSSI).

~~14.~~ 13. A network entity for wireless communications comprising:

a memory; and

a processor communicatively coupled with the memory and configured to:

receive, from a user equipment (UE), a request to form a coordinated multi-point (CoMP) cluster set of transmit/receive points (TRPs) for ~~a user equipment (UE);~~

the UE; in response to receiving the request to form a CoMP cluster set of TRPs for the UE, determine the CoMP cluster set of TRPs for the UE based on at least a delay budget and a reliability requirement, and one or more of configuration information and measurements~~;~~ in addition to the delay budget and

the reliability requirement, wherein the configuration information and measurements includes one or more of current channel measurements or long term channel measurements, wherein the one or more current channel measurements or long term channel measurements include one or more of path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE; and coordinate communications for the UE using the CoMP cluster set.

~~15.~~ 14. The network entity of claim ~~14~~13, wherein the request is received from one or more of the UE, TRP, entity in a radio access network (RAN), central unit, distributed unit, entity in a core network or an operations and management (OAM) entity.

~~16.~~ 15. The network entity of claim ~~14 or 15~~13, wherein the delay budget is based on one or more of end-to-end latency requirements, jitter requirements, round-trip-time requirements or survival time requirements.

~~17.~~ 16. The network entity of ~~any previous~~ claim ~~14-16~~13, wherein the reliability requirement is based on one or more of packet error rate (PER) requirement or communication service availability requirement.

~~18.~~ 17. The network entity of ~~any previous~~ claim ~~14-17~~13, wherein the reliability requirement is based on, on a per packet basis, one or more of a survival time associated with a radio bearer user for communication, number of packet errors of one or more preceding packets or number of consecutive packet errors in preceding packets.

~~19.~~ 18. The network entity of ~~any previous claims 14-18~~claim 13, wherein the processor is configured to:

adjust the CoMP cluster set of TRPs based on one or more of a number of allowed subsequent re-transmissions to the UE, configuration information and measurements, delay budget or reliability requirement.

~~20.~~ 19. The network entity of claim ~~19~~18, wherein the CoMP cluster set of TRPs is determined using an adjustment based on one or more of a slot structure, UE processing delays, TRP processing delays or backhaul latency.

~~21.~~ 20. The network entity of claim ~~20~~19, wherein the adjustment is a decrease in number of TRPs in the CoMP cluster set when the delay budget allows for one or more subsequent re-transmissions.

~~22.~~ 21. The network entity of claim ~~20~~19, wherein the adjustment is an increase in number of TRPs in the CoMP cluster set when the delay budget does not allow for one or more subsequent re-transmissions.

~~23. The network entity of claim 19, wherein the configuration information and measurements includes one or more of current channel measurements or long term channel measurements, wherein the current channel measurements include one or more~~

~~of path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE, and wherein the long term channel measurements include one or more of past path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE.~~

~~24. The network entity of claim 23~~22. The network entity of claim 13, wherein the CSI includes one or more of a channel quality indicator (CQI), precoding matrix indicator (PMI), precoding type indicator (PTI), or rank indication (RI).

~~25.~~ 23. The network entity of claim ~~23~~13, wherein the synchronization signal measurements include one or more of Primary Synchronization Signal (PSS) measurements or Secondary Synchronization Signal (SSS) measurements.

~~26.~~ 24. The network entity of claim ~~23~~13, wherein the reference signal measurements include one or more of reference signal received power (RSRP) measurements, reference signal received quality (RSRQ) measurements or received signal strength indicator (RSSI).

~~27. A network entity for wireless communications comprising:~~

~~means for receiving a request to form a coordinated multi-point (CoMP) cluster of transmit/receive points (TRPs) for a user equipment (UE);~~

~~means for determining~~

25. The network entity of claim 13, wherein: the CSI includes one or more of a channel quality indicator (CQI), precoding matrix indicator (PMI), precoding type indicator (PTI), or rank indication (RI); the synchronization signal measurements include one or more of Primary Synchronization Signal (PSS) measurements or Secondary Synchronization Signal (SSS) measurements; and the reference signal measurements include one or more of reference signal received power (RSRP) measurements, reference signal received quality (RSRQ) measurements or received signal strength indicator (RSSI).

26. A non-transitory computer-readable medium storing computer-executable code that

when executed by a processor of a network entity cause the processor to: receive, from a user equipment, a request to form a coordinated multi-point (CoMP) cluster set of transmit/receive points (TRPs) for the UE; in response to receiving the request to form a CoMP cluster set of TRPs for the UE, determine the CoMP cluster set of TRPs for the UE based on at least a delay budget and a reliability requirement, and one or more of configuration information and measurements~~; and~~

~~means for coordinating communications for the UE using the CoMP cluster set.~~

~~28. The network entity of claim 27~~ in addition to the delay budget and the reliability requirement, wherein the configuration information and measurements includes one or more of current channel measurements or long term channel measurements, wherein the one or more current channel measurements or long term channel measurements include one or more of path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE; and coordinate communications for the UE using the CoMP cluster set.

27. The non-transitory computer-readable medium of claim 26, where the code further causes the processor to adjust the CoMP cluster set of TRPs based on one or more of a number of allowed subsequent re-transmissions to the UE, configuration information and measurements, or delay budget and reliability requirement.

28. The non-transitory computer-readable medium of claim 26, wherein: the CSI includes one or more of a channel quality indicator (CQI), precoding matrix indicator (PMI), precoding type indicator (PTI), or rank indication (RI); the synchronization signal measurements include one or more of Primary Synchronization Signal (PSS) measurements or Secondary Synchronization Signal (SSS) measurements; and the reference signal measurements include one or more of reference signal received power (RSRP) measurements, reference signal received quality (RSRQ) measurements or received signal strength indicator (RSSI).

29. A network entity for wireless communications comprising: means for receiving, from a user equipment (UE), a request to form a coordinated multi-point (CoMP) cluster of transmit/receive points (TRPs) for the UE; means for determining, in response to receiving the request to form a CoMP cluster set of TRPs for the UE, the

CoMP cluster set of TRPs for the UE based on at least a delay budget and a reliability requirement, and one or more of configuration information and measurements in addition to the delay budget and the reliability requirement, wherein the configuration information and measurements includes one or more of current channel measurements or long term channel measurements, wherein the one or more current channel measurements or long term channel measurements include one or more of path loss, channel state information (CSI), synchronization signal measurements or reference signal measurements associated with the UE; and means for coordinating communications for the UE using the CoMP cluster set.

30. The network entity of claim 29, further comprising means for adjusting the CoMP cluster set of TRPs based on one or more of a number of allowed subsequent re-transmissions to the UE, configuration information and measurements, delay budget or reliability requirement.