WHAT IS CLAIMED IS:

1. A method comprising:

determining a set of failed cells from serving cells associated with a first device based on a beam failure detection, wherein the beam failure detection is based on a failure of at least one failure detection resource set, wherein one or more of the serving cells are configured with two failure detection resource sets; and

generating a beam failure report indicating respective one or more failure detection resource sets associated with at least a portion of the set of failed cells,

wherein,

for a failed Special Cell, SpCell, that is indicated in the beam failure report, with both of the two failure detection resource sets having failed, two octets with an available candidate (AC) field are included, and

for any failed Secondary Cell, SCell, that is indicated in the beam failure report, only one octet with an AC field is include.

2. The method of claim 1, wherein generating the beam failure report comprises:

in accordance with a determination that two failure detection resource sets are configured for respective one of failed cells, determining a respective first failure detection resource set for each of the set of failed cells and a respective second failure detection resource set for at least a portion of the set of failed cells; and

generating the beam failure report based on the determined first and second failure detection resource sets.

3. The method of claim 2, wherein the beam failure report includes an indication of identifiers for the determined first failure detection resource sets.

4. The method of claim 2, wherein the beam failure report includes respective indications whether the determined second failure detection resource sets are failed.

5. The method of any previous claim, further comprising

indicating, in the beam failure report, failure information of a respective second failure detection resource set after the failure information of a first failure detection resource set based on an available grant size for said beam failure report.

6. The method of any previous claim, wherein the beam failure report includes a field for indicating all serving cells for which beam failure is detected.

7. The method of any previous claim, further comprising

indicating an index associated with a respective failed failure detection resource set using a bit field in the beam failure report.

8. The method of any previous claim, wherein the beam failure report comprises one or more octets containing an available candidate (AC) field,

wherein a second octet containing an available candidate (AC) field for a second failure detection resource set of any failed serving cell is included in ascending order based on serving cell ID in the beam failure report after a first octet containing an available candidate (AC) field being included for all failed serving cells.

9. The method of any previous claim, wherein failure information relating to a failed failure detection resource set of a SpCell is prioritized in the beam failure report over failure information of other cells.

10. The method of any previous claim, wherein said beam failure report includes only one octet containing an available candidate (AC) field for a failed serving cell in a case where a size limitation for the beam failure report is such that two octets for said a serving cell cannot be included.

11. The method of claim 10, wherein an index value of a failed failure detection resource set is included in the one octet included in said beam failure report.

12. The method of any previous claim, wherein for a serving cell with only one configured failure detection resource set, a reserved bit in an octet containing an available candidate (AC) field is set to 0.

13. The method of any one of claims 1 to 12, wherein the beam failure report includes an indication whether a single failure detection resource set or more than one failure detection resource sets for a failed cell in the set of failed cells are failed.

14. A device comprising:

at least one processor; and

at least one memory including computer program codes;

wherein the at least one memory and the computer program codes are configured to, with the at least one processor, cause the first device at least to perform the method of any of claims 1-13.

15. A non-transitory computer readable medium comprising program instructions for causing an apparatus to perform the method of any of claims 1-13.

16. An apparatus comprising:

means for determining a set of failed cells from serving cells associated with a first device based on a beam failure detection, wherein the beam failure detection is based on a failure of at least one failure detection resource set, wherein one or more of the serving cells are configured with two failure detection resource sets; and

means for generating a beam failure report indicating respective one or more failure detection resource sets associated with at least a portion of the set of failed cells,

wherein,

for a failed Special Cell, SpCell, that is indicated in the beam failure report, with both of the two failure detection resource sets having failed, two octets with an available candidate (AC) field are included, and

for any failed Secondary Cell, SCell, that is indicated in the beam failure report, only one octet with an AC field is include.

17. The apparatus of claim 16, wherein when generating the beam failure report, the means for generating a beam failure report is configured to:

in accordance with a determination that two failure detection resource sets are configured for respective one of failed cells, determine a respective first failure detection resource set for each of the set of failed cells and a respective second failure detection resource set for at least a portion of the set of failed cells; and

generate the beam failure report based on the determined first and second failure detection resource sets.

18. The apparatus of claim 17, wherein the beam failure report includes an indication of identifiers for the determined first failure detection resource sets.

19. The apparatus of claim 17, wherein the beam failure report includes respective indications whether the determined second failure detection resource sets are failed.

20. The apparatus of any one of claims 16-19, wherein the apparatus is further configured to:

indicate, in the beam failure report, failure information of a respective second failure detection resource set after the failure information of a first failure detection resource set based on an available grant size for said beam failure report.

21. The apparatus of any one of claims 16-20, wherein the beam failure report includes a field for indicating all serving cells for which beam failure is detected.

22. The apparatus of any one of claims 16-21, wherein the apparatus is further configured to:

indicate an index associated with a respective failed failure detection resource set using a bit field in the beam failure report.

23. The apparatus of any one of claims 16-22, wherein the beam failure report comprises one or more octets containing an available candidate (AC) field,

wherein a second octet containing an available candidate (AC) field for a second failure detection resource set of any failed serving cell is included in ascending order based on serving cell ID in the beam failure report after a first octet containing an available candidate (AC) field being included for all failed serving cells.

24. The apparatus of any one of claims 16-23, wherein failure information relating to a failed failure detection resource set of a SpCell is prioritized in the beam failure report over failure information of other cells.

25. The apparatus of any one of claims 16-24, wherein said beam failure report includes only one octet containing an available candidate (AC) field for a failed serving cell in a case where a size limitation for the beam failure report is such that two octets for said a serving cell cannot be included.

26. The apparatus of claim 25, wherein an index value of a failed failure detection resource set is included in the one octet included in said beam failure report.

27. The apparatus of any one of claims 16-26, wherein for a serving cell with only one configured failure detection resource set, a reserved bit in an octet containing an available candidate (AC) field is set to 0.

28. The apparatus of any one of claims 16-27, wherein the beam failure report includes an indication whether a single failure detection resource set or more than one failure detection resource sets for a failed cell in the set of failed cells are failed.