

CLAIMS

1. A method, performed by a network node (600; 110) comprised in a wireless communication network (100), for managing allocation of uplink resources regarding remaining data blocks of an uplink transmission performed by a device (800; 120), wherein the method comprises:
 - *sending (201; 501)*, to the device (800; 120), first allocation information that identifies uplink resources that have been allocated to the device (800; 120) for uplink transmission of said remaining data blocks, the remaining data blocks being associated with the allocated uplink resources, respectively, and
 - *sending (203; 502)*, to the device (800; 120), a second allocation information that identifies one or more of said allocated uplink resources identified by the first allocation information and that have been allocated for uplink transmission of said remaining data blocks, wherein said second allocation information further identifies one or more of said remaining data blocks as data blocks to be excluded by the device (800; 120).
2. The method as claimed in claim 1, wherein the one or more remaining data blocks to be excluded are associated with one or more of the uplink resources that have been allocated first in time.
3. The method as claimed in any one of claims 1-2, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the second allocation information to the device (800; 120).
4. The method as claimed in any one of claims 1-3, wherein the associations between the remaining data blocks and the allocated uplink resources are predefined and based on the first allocation information and second allocation information.
5. The method as claimed in any one of claims 1-4, wherein the remaining data blocks are associated with identifiers, respectively, such that each remaining data block is identified by a respective identifier.

6. The method as claimed in claim 5, wherein the identifiers are sequence numbers.
- 5 7. The method as claimed in claim 6, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the second allocation information to the device (800; 120), which offset indicator is in the form of an integer value that indicates a number of data blocks to be excluded..
- 10 8. The method as claimed in any one of claims 1-7, wherein the first allocation information is comprised in a first acknowledgement message that identifies the remaining data blocks by acknowledged and/or not acknowledged receipt of data blocks and the second allocation information
- 15 is comprised in a second acknowledgement message that identifies the remaining data blocks by acknowledged and/or not acknowledged receipt of data blocks.
- 20 9. The method as claimed in any one of claims 1-8, wherein the wireless communication network (100) is a Global System for Mobile communications, "GSM", network, the data blocks are Radio Link Control, "RLC" data blocks, and the uplink transmission is part of a Temporary Block Flow, "TBF".
- 25 10. A computer program (603) comprising instructions that when executed by a network node (600; 110) causes the network node (600; 110) to perform the method according to any one of claims 1-9.
- 30 11. A computer readable medium (901; 902; 903) comprising the computer program (603) according to claim 10.
- 35 12. A method, performed by a device (800; 120), for managing allocation of uplink resources regarding remaining data blocks of an uplink transmission performed by the device (800; 120) in a wireless communication network (100), wherein the method comprises:
 - *receiving* (203; 701), from a network node (600; 110) comprised in the

- 5 wireless communication network (100), an allocation information that identifies uplink resources that have been allocated to the device (800; 120) for uplink transmission of said remaining data blocks, the remaining data blocks being associated with the allocated uplink resources, respectively, and which the allocation information further identifies one or more of the remaining data blocks as data blocks to be excluded by the device (800; 120).
- 10 13. The method as claimed in claim 12, wherein the one or more remaining data blocks to be excluded are associated with one or more of the uplink resources that have been allocated first in time.
- 15 14. The method as claimed in any one of claims 12-13, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the allocation information to the device (800; 120).
- 20 15. The method as claimed in any one of claims 12-14, wherein the associations between the remaining data blocks and the allocated uplink resources are predefined and based on the allocation information.
- 25 16. The method as claimed in any one of claims 12-15, wherein the remaining data blocks are associated with identifiers, respectively, such that each remaining data block is identified by a respective identifier.
- 30 17. The method as claimed in claim 16, wherein the identifiers are sequence numbers.
18. The method as claimed in claim 17, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the allocation information to the device (800; 120), which offset indicator is in the form of an integer value that indicates a number of data blocks to be excluded.
- 35 19. The method as claimed in any one of claims 12-18, wherein the allocation information is comprised in an acknowledgement message that identifies

the remaining data blocks by acknowledged and/or not acknowledged receipt of data blocks.

20. The method as claimed in any one of claims 12-19, wherein the wireless communication network (100) is a Global System for Mobile communications, "GSM", network, the data blocks are Radio Link Control, "RLC" data blocks, and the uplink transmission is part of a Temporary Block Flow, "TBF".
21. A computer program (803) comprising instructions that when executed by a device (800; 120) causes the device (800; 120) to perform the method according to any one of claims 12-20.
22. A computer readable medium (901; 902; 903) comprising the computer program (803) according to claim 21.
23. A network node (600; 110), configured to be comprised in a wireless communication network (100), for managing allocation of uplink resources regarding remaining data blocks of an uplink transmission performed by a device (800; 120), wherein the network node (600; 110) is configured to:
send (201; 501), to the device (800; 120), first allocation information that identifies uplink resources that have been allocated to the device (800; 120) for uplink transmission of said remaining data blocks, the remaining data blocks being associated with the allocated uplink resources,
respectively, and
send (203; 502), to the device (800; 120), a second allocation information that identifies one or more of said allocated uplink resources identified by the first allocation information and that have been allocated for uplink transmission of said remaining data blocks, wherein said second allocation information further identifies one or more of said remaining data blocks as data blocks to be excluded by the device (800; 120).
24. The network node (600; 110) as claimed in claim 23, wherein the one or more remaining data blocks to be excluded are associated with one or more of the uplink resources that have been allocated first in time.

25. The network node (600; 110) as claimed in any one of claims 23-24, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the second allocation information to the device (800; 120).
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26. The network node (600; 110) as claimed in any one of claims 23-25, wherein the associations between the remaining data blocks and the allocated uplink resources are predefined and based on the first allocation information and second allocation information.
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27. The network node (600; 110) as claimed in any one of claims 23-26, wherein the remaining data blocks are associated with identifiers, respectively, such that each remaining data block is identified by a respective identifier.
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28. The network node (600; 110) as claimed in claim 27, wherein the identifiers are sequence numbers.
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29. The network node (600; 110) as claimed in claim 28, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the second allocation information to the device (800; 120), which offset indicator is in the form of an integer value that indicates a number of data blocks to be excluded.
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30. The network node (600; 110) as claimed in any one of claims 23-29, wherein the second allocation information is comprised in a second acknowledgement message that identifies the remaining data blocks by acknowledged and/or not acknowledged receipt of data blocks.
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31. The network node (600; 110) as claimed in any one of claims 23-30, wherein the wireless communication network (100) is a Global System for Mobile communications, "GSM", network, the data blocks are Radio Link Control, "RLC" data blocks, and the uplink transmission is part of a Temporary Block Flow, "TBF".
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32. A device (800; 120) for managing allocation of uplink resources regarding remaining data blocks of an uplink transmission performed by the device (800; 120) in a wireless communication network (100), wherein the device (800; 130) is configured to:
- 5 receive (203; 701), from a network node (600; 110) comprised in the wireless communication network (100), a allocation information that identifies uplink resources that have been allocated to the device (800; 120) for uplink transmission of said remaining data blocks, the remaining data blocks being associated with the allocated uplink resources, respectively, and which the allocation information further identifies one or more of the remaining data blocks as data blocks to be excluded by the device (800; 120).
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33. The device (800; 120) as claimed in claim 32, wherein the one or more remaining data blocks to be excluded are associated with one or more of the uplink resources that have been allocated first in time.
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34. The device (800; 120) as claimed in any one of claims 32-33, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the allocation information to the device (800; 120).
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35. The device (800; 120) as claimed in any one of claims 32-34, wherein the associations between the remaining data blocks and the allocated uplink resources are predefined and based on the allocation information.
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36. The device (800; 120) as claimed in any one of claims 32-35, wherein the remaining data blocks are associated with identifiers, respectively, such that each remaining data block is identified by a respective identifier.
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37. The device (800; 120) as claimed in claim 36, wherein the identifiers are sequence numbers.
38. The device (800; 120) as claimed in claim 37, wherein the one or more remaining data blocks to be excluded are identified by means of an offset indicator that is sent together with the allocation information to the device
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(800; 120), which offset indicator is in the form of an integer value that indicates a number of data blocks to be excluded.

5 39. The device (800; 120) as claimed in any one of claims 32-38, wherein the allocation information is comprised in an acknowledgement message that identifies the remaining data blocks by acknowledged and/or not acknowledged receipt of data blocks.

10 40. The device (800; 120) as claimed in any one of claims 32-39, wherein the wireless communication network (100) is a Global System for Mobile communications, "GSM", network, the data blocks are Radio Link Control, "RLC" data blocks, and the uplink transmission is part of a Temporary Block Flow, "TBF".

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