

CLAIMS

1. A wireless communications method for uplink grant reception at a UE comprising:

identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

identifying an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response; and

considering a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

2. A wireless communications method for downlink assignment reception at a UE, comprising:

identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

identifying a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI; and

considering a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

3. A wireless communications apparatus, comprising:

a memory that stores data relating to a Hybrid Automatic Repeat Request (HARQ) process, a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI; and

a processor configured to identify at least one of the C-RNTI, the SPS C-RNTI, and the temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with the HARQ process, to identify an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response, and to consider a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

4. A wireless communications apparatus, comprising:

a memory that stores data relating to a Hybrid Automatic Repeat Request (HARQ) process, a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI; and

a processor configured to identify at least one of the C-RNTI, the SPS C-RNTI, and the temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process, to identify a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI, and to consider a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

5. A wireless communications apparatus, comprising:

means for identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

means for identifying an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response; and

means for considering a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the

uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

6. A wireless communications apparatus, comprising:

means for identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

means for identifying a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI; and

means for considering a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

7. A computer-readable medium, comprising:

code for causing a computer to identify at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

code for causing a computer to identify an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response; and

code for causing a computer to consider a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

8. A computer-readable medium, comprising:

code for causing a computer to identify at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

code for causing a computer to identify a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI; and

code for causing a computer to consider a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

CLAIMS

1. A wireless communications method, including:

identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

identifying an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response; and

considering a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

2. A wireless communications method, including:

identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

identifying a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI; and

considering a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

3. A wireless communications apparatus, including:

a memory that stores data relating to a Hybrid Automatic Repeat Request (HARQ) process, a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI; and

a processor configured to identify at least one of the C-RNTI, the SPS C-RNTI, and the temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with the HARQ process, to identify an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response, and to consider a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for

the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

4. A wireless communications apparatus, including:

a memory that stores data relating to a Hybrid Automatic Repeat Request (HARQ) process, a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI; and

a processor configured to identify at least one of the C-RNTI, the SPS C-RNTI, and the temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process, to identify a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI, and to consider a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

5. A wireless communications apparatus, including:

means for identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

means for identifying an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response; and

means for considering a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

6. A wireless communications apparatus, including:

means for identifying at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

means for identifying a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI; and

means for considering a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a

configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.

7. A computer-readable medium, including:

code for causing a computer to identify at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

code for causing a computer to identify an uplink grant for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI or an uplink grant for the given TTI received in a Random Access Response; and

code for causing a computer to consider a new data indicator (NDI) associated with the uplink grant to have been toggled regardless of a value of the NDI upon determining that the uplink grant is for the C-RNTI and either an uplink grant has been received for the SPS C-RNTI or a configured uplink grant has occurred since a previous received uplink grant for the C-RNTI for the HARQ process.

8. A computer-readable medium, including:

code for causing a computer to identify at least one of a cell radio network temporary identifier (C-RNTI), a semi-persistent scheduling (SPS) C-RNTI, and a temporary C-RNTI to be utilized at a given transmission time interval (TTI) in association with a Hybrid Automatic Repeat Request (HARQ) process;

code for causing a computer to identify a downlink assignment for the given TTI received on a Physical Downlink Control Channel (PDCCH) for at least one of the C-RNTI and temporary C-RNTI; and

code for causing a computer to consider a new data indicator (NDI) associated with the downlink assignment to have been toggled regardless of a value of the NDI upon determining that the downlink assignment is for the C-RNTI and either a downlink assignment has been received for the SPS C-RNTI or a configured downlink assignment has been indicated to an associated HARQ entity since a previous received downlink assignment for the C-RNTI for the HARQ process.