What is claimed is:

1. A method, comprising:
prior to confirmation that a network access node has correctly acquired capabilities of a user equipment, operating a user equipment with the network access node in accordance with a first rate matching mode; and
only after confirmation to the user equipment that the network access node has correctly acquired capabilities of the user equipment, changing the rate matching mode to a second rate matching mode,
where the confirmation is achieved by one of explicitly based on signaling, or implicitly based on signaling and by application of a rule, or implicitly based on application of a rule, and where
the confirmation is achieved implicitly based on execution of a radio resource control connection reconfiguration signaling procedure, and where the rule comprises the network access node initiating rate matching around the reference symbols for the user equipment only after it has received a radio resource control connection reconfiguration complete message from the user equipment.

2. The method of claim 1, where the first rate matching mode comprises puncturing a downlink shared channel transmission with a set of resource elements, and where the second rate matching mode comprises rate matching the downlink shared channel around those resource elements that are members of the set of resource elements.

3. The method of claim 2, where the set of resource elements contains at least one of reference symbols and muted resource elements.

4. The method of claim 3, where the reference symbols are channel state information reference symbols transmitted in support of multiple input multiple output operation of the network access node and the user equipment.

5. The method of claim 1, where the confirmation is achieved explicitly based on one of radio resource control signaling using one of a confirmation message that comprises part of a radio resource control capability transfer procedure, or a parameter that comprises part of a radio resource control connection reconfiguration message defining the rate matching mode.

6. The method of claim 1, where the confirmation is achieved explicitly based on downlink control information signaling using at least one bit to indicate the rate matching mode.

7. The method as in claim 1, further comprising transmitting to the user equipment an indication of a reference signal configuration in a system information block, or by using dedicated radio resource control signaling.

8. The method as in claim 1, further comprising transmitting to the user equipment a configuration of resource elements that are muted in a system information block, or by using dedicated radio resource control signaling.

9. A method, comprising:
prior to confirmation that a network access node has correctly acquired capabilities of a user equipment, operating a user equipment with the network access node in accordance with a first rate matching mode; and
only after confirmation to the user equipment that the network access node has correctly acquired capabilities of the user equipment, changing the rate matching mode to a second rate matching mode,
where the confirmation is achieved by one of explicitly based on signaling, or implicitly based on signaling and by application of a rule, or implicitly based on application of a rule, and
where the confirmation is achieved implicitly based on the use of a radio resource control connection reconfiguration, where the rate matching mode is changed in compliance with radio resource control procedure delay rules and includes residual configuration ambiguity, or is changed with a synchronized radio resource control reconfiguration procedure using an intra-cell handover of the user equipment to substantially eliminate residual configuration ambiguity.

10. A non-transitory computer-readable medium that contains software program instructions, where execution of the software program instructions by at least one data processor results in performance of operations that comprise execution of the method of claim 1.

11. An apparatus, comprising:

a processor; and

a memory including computer program code, where the memory and computer program code are configured to, with the processor, cause the apparatus at least to,

prior to confirmation that a network access node has correctly acquired capabilities of a user equipment, operate a user equipment with the network access node in accordance with a first rate matching mode; and only after confirmation to the user equipment that the network access node has correctly acquired capabilities of the user equipment, change the rate matching mode to a second rate matching mode,

where the confirmation is achieved by one of explicitly based on signaling, or implicitly based on signaling and by application of a rule, or implicitly based on application of a rule; and where the confirmation is achieved implicitly based on execution of a radio resource control connection reconfiguration signaling procedure, and where the rule comprises the network access node initiating rate matching around the reference symbols for the user equipment only after it has received a radio resource control connection reconfiguration complete message from the user equipment.

12. The apparatus of claim 11, where the first rate matching mode comprises puncturing a downlink shared channel transmission with a set of resource elements, and where the second rate matching mode comprises rate matching the downlink shared channel around those resource elements that are members of the set of resource elements.

13. The apparatus of claim 12, where the set of resource elements contains at least one of reference symbols and muted resource elements.

14. The apparatus of claim 13, where the reference symbols are channel state information reference symbols transmitted in support of multiple input multiple output operation of the network access node and the user equipment.

15. The apparatus of claim 11, where the confirmation is achieved explicitly based on one of radio resource control signaling using one of a confirmation message that comprises part of a radio resource control capability transfer procedure, or a parameter that comprises part of a radio resource control connection reconfiguration message defining the rate matching mode.

16. The apparatus of claim 11, where the confirmation is achieved explicitly based on

downlink control information signaling using at least one bit to indicate the rate matching mode.

17. The apparatus as in claim 11, further comprising transmitting to the user equipment an indication of a reference signal configuration in a system information block, or by using dedicated radio resource control signaling.

18. The apparatus as in claim 11, further comprising transmitting to the user equipment a configuration of resource elements that are muted in a system information block, or by using dedicated radio resource control signaling.

19. The apparatus as in claim 11, where the apparatus is configured to operate with long term evolution-advanced protocols and specifications.

20. An apparatus, comprising:
a processor; and
a memory including computer program code, where the memory and computer program code are configured to, with the processor cause the apparatus at least to
prior to confirmation that a network access node has correctly acquired capabilities of a user equipment, operate a user equipment with the network access node in accordance with a first rate matching mode; and
only after confirmation to the user equipment that the network access node has correctly acquired capabilities of the user equipment, change the rate matching mode to a second rate matching mode,
where the confirmation is achieved by one of explicitly based on signaling, or implicitly based on signaling and by application of a rule, or implicitly based on application of a rule;
where the confirmation is achieved implicitly based on execution of a radio resource control connection reconfiguration, where the rate matching mode is changed in compliance with radio resource control procedure delay rules and includes residual configuration ambiguity, or is changed with a synchronized radio resource control reconfiguration procedure using an intra-cell handover of the user equipment to substantially eliminate residual configuration ambiguity.

CLAIMS
What is claimed is:

1. A method, comprising:

prior to confirmation that a network access node has correctly acquired capabilities of a user equipment, operating a user equipment with the network access node in accordance with a first rate matching mode; and

only after confirmation to the user equipment that the network access node has correctly acquired capabilities of the user equipment, changing the rate matching mode to a second rate matching mode.

2. The method of claim 1, where the first rate matching mode comprises puncturing a downlink shared channel transmission with a set of resource elements, and where the second rate matching mode comprises rate matching the downlink shared channel around those resource elements that are members of the set of resource elements.

3. The method of claim 2, where the set of resource elements contains at least one of reference symbols and muted resource elements.

4. The method of claim 3, where the reference symbols are channel state information reference symbols transmitted in support of multiple input multiple output operation of the network access node and the user equipment.

5. The method of claim 1, where the confirmation is achieved by one of explicitly based on signaling, implicitly based on signaling and application of a rule.

6. The method of claim 5, where the confirmation is achieved explicitly based on one of radio resource control signaling using one of a confirmation message that comprises part of a radio resource control capability transfer procedure, or a parameter that comprises part of a radio resource control connection reconfiguration message defining the rate matching mode.

7. The method of claim 5, where the confirmation is achieved explicitly based on downlink control information signaling using at least one bit to indicate the rate matching mode.

8. The method of claim 5, where the confirmation is achieved implicitly based on execution of a radio resource control connection reconfiguration signaling procedure, and where the rule comprises the network access node initiating rate matching around the reference symbols for the user equipment only after it has received a radio resource control connection reconfiguration complete message from the user equipment.

9. The method of claim 5, where the confirmation is achieved implicitly based on the use of a radio resource control connection reconfiguration, where the rate matching mode is changed in compliance with radio resource control procedure delay rules and includes residual configuration ambiguity, or is changed with a synchronized radio resource control reconfiguration procedure using an intra-cell handover of the user equipment to substantially eliminate residual configuration ambiguity.

10. The method as in any one of the preceding claims, further comprising transmitting to the user equipment an indication of a reference signal configuration in a system information

block, or by using dedicated radio resource control signaling.

11. The method as in any one of the claims 1-9, further comprising transmitting to the user equipment a configuration of resource elements that are muted in a system information block, or by using dedicated radio resource control signaling.

12. A non-transitory computer-readable medium that contains software program instructions, where execution of the software program instructions by at least one data processor results in performance of operations that comprise execution of the method of any one of claims 1 through 11.

13. An apparatus, comprising:

a processor; and

a memory including computer program code, where the memory and computer program code are configured to, with the processor, cause the apparatus at least to,

prior to confirmation that a network access node has correctly acquired capabilities of a user equipment, operate a user equipment with the network access node in accordance with a first rate matching mode; and

only after confirmation to the user equipment that the network access node has correctly acquired capabilities of the user equipment, change the rate matching mode to a second rate matching mode.

14 The apparatus of claim 13, where the first rate matching mode comprises puncturing a downlink shared channel transmission with a set of resource elements, and where the

second rate matching mode comprises rate matching the downlink shared channel around those resource elements that are members of the set of resource elements.

15. The apparatus of claim 14, where the set of resource elements contains at least one of reference symbols and muted resource elements.

16. The apparatus of claim 15, where the reference symbols are channel state information reference symbols transmitted in support of multiple input multiple output operation of the network access node and the user equipment.

17. The apparatus of claim 13, where the confirmation is achieved by one of explicitly based on signaling, implicitly based on signaling and application of a rule.

18. The apparatus of claim 17, where the confirmation is achieved explicitly based on one of radio resource control signaling using one of a confirmation message that comprises part of a radio resource control capability transfer procedure, or a parameter that comprises part of a radio resource control connection reconfiguration message defining the rate matching mode.

19. The apparatus of claim 17, where the confirmation is achieved explicitly based on downlink control information signaling using at least one bit to indicate the rate matching mode.

20. The apparatus of claim 17, where the confirmation is achieved implicitly based on execution of a radio resource control connection reconfiguration signaling procedure, and where the rule comprises the network access node initiating rate matching around the reference symbols for the user equipment

only after it has received a radio resource control connection reconfiguration complete message from the user equipment.

21. The apparatus of claim 17, where the confirmation is achieved implicitly based on execution of a radio resource control connection reconfiguration, where the rate matching mode is changed in compliance with radio resource control procedure delay rules and includes residual configuration ambiguity, or is changed with a synchronized radio resource control reconfiguration procedure using an intra-cell handover of the user equipment to substantially eliminate residual configuration ambiguity.

22. The apparatus as in any one of the preceding claims, further comprising transmitting to the user equipment an indication of a reference signal configuration in a system information block, or by using dedicated radio resource control signaling.

23. The apparatus as in any one of the claims 13-22, further comprising transmitting to the user equipment a configuration of resource elements that are muted in a system information block, or by using dedicated radio resource control signaling.

24. The apparatus as in any one of claims 13-23, where the apparatus is configured to operate with long term evolution-advanced protocols and specifications.