What is claimed is:

1. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

receiving a poll from a network requesting the mobile station to send polled acknowledgment information during a period; and

sending during the period the polled acknowledgment information and refraining from sending during the period event-based acknowledgment information for the downlink data block classified as unreported.

2. A method as defined in claim 1 further comprising sending during the period the event-based acknowledgment information for the downlink data block when an acknowledgment omission criterion indicates the polled acknowledgment information is substantially likely to not be received completely by the network during the period.

3. A method as defined in claim 2 wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is substantially likely to not be received completely by the network when an estimated uplink channel quality is less than a threshold, and indicates that the polled acknowledgment information is substantially likely to be received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold.

4. A method as defined in claim 2 wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is substantially likely to not be received completely by the network when an estimated uplink channel quality is less than a threshold and the polled acknowledgment information comprises a piggy-backed ACK/NACK (PAN) field to be sent by the mobile station according to an enhanced general packet radio service (EGPRS) polled fast ACK/NACK reporting (FANR) procedure, and wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is substantially likely to be received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold, or the polled acknowledgment information comprises an ACK/NACK field to be sent by the mobile station in an EGPRS ACK/NACK control message.

5. A method as defined in claim 2 wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is substantially likely to not be received completely by the network when a remaining amount of acknowledgment information to send is greater than or equal to a threshold, and indicates that the polled acknowledgment information is substantially likely to be received completely by the network when the remaining amount of acknowledgment information to send is less than the threshold.

6. A method as defined in claim 2 wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is substantially likely to not be received completely by the network when a downlink channel assignment is greater than or equal to a threshold, and indicates that the polled acknowledgment information is substantially likely to be received completely by the network when the downlink channel assignment is less than the threshold.

7. A method as defined in claim 1 wherein the event-based acknowledgment information comprises a PAN field according to an EGPRS event-based FANR procedure or an ACK/NACK field in an EGPRS ACK/NACK control message.

8. A method as defined in claim 1 wherein the polled acknowledgment information comprises at least one of a piggy-backed ACK/NACK (PAN) field or an ACK/NACK field in an EGPRS ACK/NACK control message.

9. A method as defined in claim 1 wherein classifying the downlink data block as unreported comprises setting an element of a receive state array to an unreported state, the element corresponding to the downlink data block.

10. A method as defined in claim 1, wherein the mobile station refrains from sending during the period event-based acknowledgment information.

11. A method as defined in claim 1, wherein the mobile station refrains from sending event-based acknowledgment information for the downlink data block classified as unreported.

12. A method as defined in claim 1, wherein the polled acknowledgement information includes acknowledgement information for the downlink data block classified as unreported.

13. A method as defined in claim 1, wherein the period is one radio block period.

14. A tangible article of manufacture storing machine readable instructions which, when executed, cause a machine capable of sending event-based acknowledgement information to:

classify a downlink data block as unreported;

receiving a poll from a network requesting the machine to send polled acknowledgment information during a period;

send the polled acknowledgment information during the period; and

refrain from sending during the period the event-based acknowledgment information for the downlink data block classified as unreported.

15. A tangible article of manufacture as defined in claim 14 wherein the machine readable instructions, when executed, further cause the machine to:

evaluate an acknowledgment omission criterion indicating whether the polled acknowledgment information is substantially likely to not be received completely by the network during the period; and

send during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is substantially likely to not be received completely by the network during the period.

16. A tangible article of manufacture as defined in claim 14 wherein the event-based acknowledgment information comprises a first piggy-backed ACK/NACK (PAN) field to be sent by the machine according to an enhanced general packet radio service (EGPRS) event-based fast ACK/NACK reporting (FANR) procedure or a first ACK/NACK field to be sent by the machine in a first EGPRS ACK/NACK control message, and wherein the polled acknowledgment information comprises at least one of a second PAN field to be sent by the machine according to an EGPRS polled FANR procedure or a second ACK/NACK field to be sent by the machine in a second EGPRS ACK/NACK control message.

17. A mobile station comprising:

an event-based acknowledgment processor to generate event-based acknowledgment information for a downlink data block classified as unreported;

a polled acknowledgment processor to generate polled acknowledgment information in response to a poll received from a network; and

an acknowledgment transmission unit to refrain from sending event-based acknowledgment information during the period for the downlink data block classified as unreported when the polled acknowledgment information is to be sent during the period.

18. A mobile station an defined in claim 17 wherein the acknowledgment transmission unit is to send the event-based acknowledgment information during the period when the polled acknowledgment information is not to be sent during the period, or the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is determined to have a substantial likelihood of not being received completely by the network during the period.

19. A mobile station as defined in claim 18 wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of not being received completely by the network when an estimated uplink channel quality is less than a threshold, and the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of being received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold.

20. A mobile station as defined in claim 18 wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of not being received completely by the network when an estimated uplink channel quality is less than a threshold and the polled acknowledgment information generated by the polled acknowledgment processor comprises a piggy-backed ACK/NACK (PAN) field to be sent by the mobile station according to an enhanced general packet radio service (EGPRS) polled fast ACK/NACK reporting (FANR) procedure, and the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of being received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold, or the polled acknowledgment information generated by the polled acknowledgment processor comprises an ACK/NACK field to be sent by the mobile station in an EGPRS ACK/NACK control message.

21. A mobile station as defined in claim 18 wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of not being received completely by the network when a remaining amount of acknowledgment information to send is greater than or equal to a threshold, and the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of being received completely by the network when the remaining amount of acknowledgment information to send is less than the threshold.

22. A mobile station as defined in claim 18 wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of not being received completely by the network when a downlink channel assignment is greater than or equal to a threshold, and the acknowledgment transmission unit is to determine that the polled acknowledgment information has a substantial likelihood of being received completely by the network when the downlink channel assignment is less than the threshold.

23. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

determining if a poll is received from a network requesting the mobile station to send polled acknowledgment information during a period; and

if a poll is received, sending during the period polled acknowledgment information, or if a poll is not received, sending during the period event-based acknowledgment information for the downlink data block classified as unreported.

24. A mobile station capable of sending event-based acknowledgment information, the mobile station comprising:

a processor, the processor being configured to:

classify a downlink data block as unreported;

determine if a poll is received from a network requesting the mobile station to send polled-acknowledgment information during a period; and

if a poll is received, send during the period polled acknowledgment information, or if a poll is not received, send during the period event-based acknowledgment information for the downlink data block classified as unreported.

25. A tangible article of manufacture storing machine readable instructions which, when executed, cause a machine capable of sending event-based acknowledgement information to:

classify a downlink data block as unreported;

determine if a poll is received from a network requesting the mobile station to send polled-acknowledgment information during a period; and

if a poll is received, send during the period polled acknowledgment information, or if a poll is not received, send during the period event-based acknowledgment information for the downlink data block classified as unreported.

What is claimed is:

1. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

receiving a poll from a network requesting the mobile station to send polled acknowledgment information during a period;

sending during the period the polled acknowledgment information;

sending during the period event-based acknowledgment information for the downlink data block classified as unreported when an acknowledgment omission criterion indicates the polled acknowledgment information is expected to not be received completely by the network during the period; and

refraining from sending during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is expected to be received completely by the network during the period.

2. A method as defined in claim 1 wherein the event-based acknowledgment information comprises a PAN field according to an EGPRS event-based FANR procedure or an ACK/NACK field in an EGPRS ACK/NACK control message.

3. A method as defined in claim 1 wherein the polled acknowledgment information comprises at least one of a piggy-backed ACK/NACK (PAN) field or an ACK/NACK field in an EGPRS ACK/NACK control message.

4. A method as defined in claim 1 wherein classifying the downlink data block as unreported comprises setting an element of a receive state array to an unreported state, the element corresponding to the downlink data block.

5. A method as defined in claim 1, wherein the mobile station refrains from sending during the period the event-based acknowledgment information.

6. A method as defined in claim 1, wherein the mobile station refrains from sending the event-based acknowledgment information for the downlink data block classified as unreported.

7. A method as defined in claim 1, wherein the polled acknowledgement information includes acknowledgement information for the downlink data block classified as unreported.

8. A method as defined in claim 1, wherein the period is one radio block period.

9. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

receiving a poll from a network requesting the mobile station to send polled acknowledgment information during a period;

sending during the period the polled acknowledgment information;

sending during the period event-based acknowledgment information for the downlink data block classified as unreported when an acknowledgment omission criterion indicates the polled acknowledgment information is expected to not be received completely by the network during the period; and

refraining from sending during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is expected to not be received completely by the network when an estimated uplink channel quality is less than a threshold, and indicates that the polled acknowledgment information is expected to be received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold.

10. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

receiving a poll from a network requesting the mobile station to send polled acknowledgment information during a period;

sending during the period the polled acknowledgment information;

sending during the period event-based acknowledgment information for the downlink data block classified as unreported when an acknowledgment omission criterion indicates the polled acknowledgment information is expected to not be received completely by the network during the period; and

refraining from sending during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is expected to not be received completely by the network when an estimated uplink channel quality is less than a threshold and the polled acknowledgment information comprises a piggy-backed ACK/NACK (PAN) field to be sent by the mobile station according to an enhanced general packet radio service (EGPRS) polled fast ACK/NACK reporting (FANR) procedure, and wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is expected to be received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold, or the polled acknowledgment information comprises an ACK/NACK field to be sent by the mobile station in an EGPRS ACK/NACK control message.

11. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

receiving a poll from a network requesting the mobile station to send polled acknowledgment information during a period;

sending during the period the polled acknowledgment information;

sending during the period event-based acknowledgment information for the downlink data block classified as unreported when an acknowledgment omission criterion indicates the polled acknowledgment information is expected to not be received completely by the network during the period; and

refraining from sending during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is expected to not be received completely by the network when a remaining amount of acknowledgment information to send is greater than or equal to a threshold, and indicates that the polled acknowledgment information is expected to be received completely by the network when the remaining amount of acknowledgment information to send is less than the threshold.

12. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a downlink data block as unreported;

receiving a poll from a network requesting the mobile station to send polled acknowledgment information during a period;

sending during the period the polled acknowledgment information;

sending during the period event-based acknowledgment information for the downlink data block classified as unreported when an acknowledgment omission criterion indicates the polled acknowledgment information is expected to not be received completely by the network during the period; and

refraining from sending during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment omission criterion indicates that the polled acknowledgment information is expected to not be received completely by the network when a downlink channel assignment is greater than or equal to a threshold, and indicates that the polled acknowledgment information is expected to be received completely by the network when the downlink channel assignment is less than the threshold.

13. A tangible machine readable storage device or storage disk comprising machine readable instructions which, when executed, cause a machine capable of sending event-based acknowledgement information to at least:

classify a downlink data block as unreported;

receiving a poll from a network requesting the machine to send polled acknowledgment information during a period;

send the polled acknowledgment information during the period;

send during the period event-based acknowledgment information for the downlink data block classified as unreported when an acknowledgment omission criterion indicates the polled acknowledgment information is expected to not be received completely by the network during the period; and

refrain from sending during the period the event-based acknowledgment information for the downlink data block when the acknowledgment omission criterion indicates the polled acknowledgment information is expected to be received completely by the network during the period.

14. A storage device or storage disk as defined in claim 13 wherein the machine readable instructions, when executed, further cause the machine to:

evaluate the acknowledgment omission criterion.

15. A storage medium device or storage disk as defined in claim 13 wherein the event-based acknowledgment information comprises a first piggy-backed ACK/NACK (PAN) field to be sent by the machine according to an enhanced general packet radio service (EGPRS) event-based fast ACK/NACK reporting (FANR) procedure or a first ACK/NACK field to be sent by the machine in a first EGPRS ACK/NACK control message, and wherein the polled acknowledgment information comprises at least one of a second PAN field to be sent by the machine according to an EGPRS polled FANR procedure or a second ACK/NACK field to be sent by the machine in a second EGPRS ACK/NACK control message.

16. A mobile station comprising:

an event-based acknowledgment processor to generate event-based acknowledgment information for a downlink data block classified as unreported;

a polled acknowledgment processor to generate polled acknowledgment information in response to a poll received from a network; and

an acknowledgment transmission unit to:

send event-based acknowledgment information during a period for the downlink data block classified as unreported when the polled acknowledgment information is not to be sent during the period, or the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to not be received completely by the network during the period; and

refrain from sending the event-based acknowledgment information during the period for the downlink data block when the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to be received completely by the network during the period.

17. A mobile station comprising:

an event-based acknowledgment processor to generate event-based acknowledgment information for a downlink data block classified as unreported;

a polled acknowledgment processor to generate polled acknowledgment information in response to a poll received from a network; and

an acknowledgment transmission unit to:

send event-based acknowledgment information during a period for the downlink data block classified as unreported when the polled acknowledgment information is not to be sent during the period, or the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to not be received completely by the network during the period; and

refrain from sending the event-based acknowledgment information during the period when the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to not be received completely by the network when an estimated uplink channel quality is less than a threshold, and the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to be received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold.

18. A mobile station comprising:

an event-based acknowledgment processor to generate event-based acknowledgment information for a downlink data block classified as unreported;

a polled acknowledgment processor to generate polled acknowledgment information in response to a poll received from a network; and

an acknowledgment transmission unit to:

send event-based acknowledgment information during a period for the downlink data block classified as unreported when the polled acknowledgment information is not to be sent during the period, or the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to not be received completely by the network during the period; and

refrain from sending the event-based acknowledgment information during the period when the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to not be received completely by the network when an estimated uplink channel quality is less than a threshold and the polled acknowledgment information generated by the polled acknowledgment processor comprises a piggy-backed ACK/NACK (PAN) field to be sent by the mobile station according to an enhanced general packet radio service (EGPRS) polled fast ACK/NACK reporting (FANR) procedure, and the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to be received completely by the network when the estimated uplink channel quality is greater than or equal to the threshold, or the polled acknowledgment information generated by the polled acknowledgment processor comprises an ACK/NACK field to be sent by the mobile station in an EGPRS ACK/NACK control message.

19. A mobile station comprising:

an event-based acknowledgment processor to generate event-based acknowledgment information for a downlink data block classified as unreported;

a polled acknowledgment processor to generate polled acknowledgment information in response to a poll received from a network; and

an acknowledgment transmission unit to:

send event-based acknowledgment information during a period for the downlink data block classified as unreported when the polled acknowledgment information is not to be sent during the period, or the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to not be received completely by the network during the period; and

refrain from sending the event-based acknowledgment information during the period when the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to not be received completely by the network when a remaining amount of acknowledgment information to send is greater than or equal to a threshold, and the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to be received completely by the network when the remaining amount of acknowledgment information to send is less than the threshold.

20. A mobile station comprising:

an event-based acknowledgment processor to generate event-based acknowledgment information for a downlink data block classified as unreported;

a polled acknowledgment processor to generate polled acknowledgment information in response to a poll received from a network; and

an acknowledgment transmission unit to:

send event-based acknowledgment information during a period for the downlink data block classified as unreported when the polled acknowledgment information is not to be sent during the period, or the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to not be received completely by the network during the period; and

refrain from sending the event-based acknowledgment information during the period when the polled acknowledgment information is to be sent during the period and the polled acknowledgment information is expected to be received completely by the network during the period, wherein the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to not be received completely by the network when a downlink channel assignment is greater than or equal to a threshold, and the acknowledgment transmission unit is to determine that the polled acknowledgment information is expected to be received completely by the network when the downlink channel assignment is less than the threshold.

21. A method for a mobile station capable of sending event-based acknowledgment information, the method comprising:

classifying a first downlink data block as unreported;

determining whether a poll is received from a network requesting the mobile station to send acknowledgment information during a period;

determining whether to send during the period event-based acknowledgment information for the first downlink data block classified as unreported based on whether the mobile station is also to send during the period polled acknowledgment information for the first downlink data block classified as unreported;

sending during the period the event-based acknowledgment information for the first downlink data block classified as unreported if the mobile station is not to send during the period any polled acknowledgment information for the first downlink data block classified as unreported; and

refraining from sending during the period the event-based acknowledgment information for the first downlink data block classified as unreported if the mobile station is to send during the period the polled acknowledgment information for the first downlink data block classified as unreported.

22. A method as defined in claim 21 wherein the event-based acknowledgment information comprises a piggy-backed ACK/NACK (PAN) field according to an enhanced general packet radio service (EGPRS) event-based fast ACK/NACK reporting (FANR) procedure or an ACK/NACK field in an EGPRS ACK/NACK control message.

23. A method as defined in claim 21 wherein the polled acknowledgment information comprises at least one of a PAN field or an ACK/NACK field in an EGPRS ACK/NACK control message.

24. A method as defined in claim 21 wherein classifying the first downlink data block as unreported comprises setting an element of a receive state array to an unreported state, the element corresponding to the first downlink data block.

25. A method as defined in claim 21 wherein the period is one radio block period.

26. A mobile station capable of sending event-based acknowledgment information, the mobile station comprising:

a processor, the processor being configured to:

classify a first downlink data block as unreported;

determine whether a poll is received from a network requesting the mobile station to send acknowledgment information during a period;

determine whether to send during the period event-based acknowledgment information for the first downlink data block classified as unreported based on whether the mobile station is also to send during the period polled acknowledgment information for the first downlink data block classified as unreported;

send during the period the event-based acknowledgment information for the first downlink data block classified as unreported if the mobile station is not to send during the period any polled acknowledgment information for the first downlink data block classified as unreported; and

refrain from sending during the period the event-based acknowledgment information for the first downlink data block classified as unreported if the mobile station is to send during the period the polled acknowledgment information for the first downlink data block classified as unreported.

27. A mobile station as defined in claim 26 wherein the event-based acknowledgment information comprises a piggy-backed ACK/NACK (PAN) field according to an enhanced general packet radio service (EGPRS) event-based fast ACK/NACK reporting (FANR) procedure or an ACK/NACK field in an EGPRS ACK/NACK control message.

28. A mobile station as defined in claim 26 wherein the polled acknowledgment information comprises at least one of a PAN field or an ACK/NACK field in an EGPRS ACK/NACK control message.

29. A mobile station as defined in claim 26 wherein to classify the first downlink data block as unreported, the processor is to set an element of a receive state array to an unreported state, the element corresponding to the first downlink data block.

30. A mobile station as defined in claim 26 wherein the period is one radio block period.

31. A tangible machine readable storage device or storage disk comprising machine readable instructions which, when executed, cause a machine capable of sending event-based acknowledgement information to at least:

classify a first downlink data block as unreported;

determine whether a poll is received from a network requesting the mobile station to send acknowledgment information during a period;

determine whether to send during the period event-based acknowledgment information for the first downlink data block classified as unreported based on whether the machine is also to send during the period polled acknowledgment information for the first downlink data block classified as unreported;

send during the period the event-based acknowledgment information for the first downlink data block classified as unreported if the machine is not to send during the period any polled acknowledgment information for the first downlink data block classified as unreported; and

refrain from sending during the period the event-based acknowledgment information for the first downlink data block classified as unreported if the machine is to send during the period the polled acknowledgment information for the first downlink data block classified as unreported.

32. A storage device or storage disk as defined in claim 31 wherein the event-based acknowledgment information comprises a piggy-backed ACK/NACK (PAN) field according to an enhanced general packet radio service (EGPRS) event-based fast ACK/NACK reporting (FANR) procedure or an ACK/NACK field in an EGPRS ACK/NACK control message.

33. A storage device or storage disk as defined in claim 31 wherein the polled acknowledgment information comprises at least one of a PAN field or an ACK/NACK field in an EGPRS ACK/NACK control message.

34. A storage device or storage disk as defined in claim 31 wherein to classify the first downlink data block as unreported, the instructions, when executed, further cause the machine to set an element of a receive state array to an unreported state, the element corresponding to the first downlink data block.

35. A storage device or storage disk as defined in claim 31 wherein the period is one radio block period.