CLAIMS

1. A method of wireless communication, comprising: receiving, at a user equipment (UE) from a serving base station, a first signal identifying a minimum processing time for the serving base station to process physical uplink shared channel (PUSCH) transmissions from the UE; receiving, at the UE, a downlink feedback information (DFI) message from the serving base station, wherein the DFI message includes a bitmap containing acknowledgment information for a plurality of PUSCH transmissions from the UE; and identifying, by the UE, whether the plurality of PUSCH transmissions includes one or more acknowledged PUSCH transmissions having a pending time in excess of the minimum processing time and whether the plurality of PUSCH transmissions includes one or more pending PUSCH transmissions having the pending time less than the minimum processing time, by interpreting the bitmap using the minimum processing time identified by the first signal.

2. The method of claim 1, wherein the receiving the first signal identifying the minimum processing time includes receiving the first signal identifying the minimum processing time via one of: a semi-static autonomous uplink (AUL) configuration message; an activation/deactivation downlink control information (DCI) signal; the DFI message; or a system information broadcast signal from the serving base station.

3. The method of claim 1, further including: identifying, by the UE, uplink data for retransmission based on the acknowledgement information associated with the one or more acknowledged PUSCH transmissions; and monitoring, by the UE, a subsequent DFI message for the acknowledgement information associated with the one or more pending PUSCH transmissions.

4. The method of claim 1, wherein the DFI feedback message further includes updated transmission parameters for the UE.

5. The method of claim 4, wherein the updated transmission parameters include one or more of: a modulation and coding scheme (MCS); a resource allocation; a delta change MCS; a delta change resource allocation; a precoding matrix indicator (PMI); a transmit power control (TPC) message; and a rank indicator.

6. The method of claim 4, further including: receiving, by the UE, a second signal identifying an update time for the UE to apply the updated transmission parameters; and updating, by the UE, transmission operations according to the updated transmission parameters, wherein the UE updates the transmission operations at the update time after the receiving the DFI with the updated transmission parameters.

7. The method of claim 6, further including: identifying, by the UE, a reference slot for a contention window update according to a first available uplink slot satisfying one or both of: the minimum processing time, and the update time.

8. The method of claim 6, wherein the receiving the second signal includes receiving the second signal via one of: a semi-static autonomous uplink (AUL) configuration message; an

activation/deactivation downlink control information (DCI) signal; the DFI message; or a system information broadcast signal from the serving base station.

9. The method of claim 6, wherein the first signal identifying the minimum processing time includes the second signal.

10. The method of claim 1, wherein the minimum processing time for the base station to process PUSCH transmissions comprises a minimum processing time for the base station to process autonomous uplink (AUL) transmissions, and wherein the plurality of PUSCH transmissions comprises a plurality of AUL transmissions.

11. An apparatus configured for wireless communication, comprising: means for receiving, at a user equipment (UE) from a serving base station, a first signal identifying a minimum processing time for the serving base station to process physical uplink shared channel (PUSCH) transmissions from the UE; means for receiving, at the UE, a downlink feedback information (DFI) message from the serving base station, wherein the DFI message includes a bitmap containing acknowledgment information for a plurality of PUSCH transmissions from the UE; and means for identifying, by the UE, whether the plurality of PUSCH transmissions includes one or more acknowledged PUSCH transmissions having a pending time in excess of the minimum processing time and whether the plurality of PUSCH transmissions includes one or more pending PUSCH transmissions having the pending time less than the minimum processing time, by interpreting the bitmap using the minimum processing time identified by the first signal.

12. The apparatus of claim 11, wherein the means for receiving the first signal identifying the minimum processing time includes means for receiving the first signal identifying the minimum processing time via one of: a semi-static autonomous uplink (AUL) configuration message; an activation/deactivation downlink control information (DCI) signal; the DFI message; or a system information broadcast signal from the serving base station.

13. The apparatus of claim 11, further including: means for identifying, by the UE, uplink data for retransmission based on the acknowledgement information associated with the one or more acknowledged PUSCH transmissions; and means for monitoring, by the UE, a subsequent DFI message for the acknowledgement information associated with the one or more pending PUSCH transmissions.

14. The apparatus of claim 11, wherein the DFI feedback message further includes updated transmission parameters for the UE.

15. The apparatus of claim 14, wherein the updated transmission parameters include one or more of: a modulation and coding scheme (MCS); a resource allocation; a delta change MCS; a delta change resource allocation; a precoding matrix indicator (PMI); a transmit power control (TPC) message; and a rank indicator.

16. The apparatus of claim 11, wherein the minimum processing time for the base station to process PUSCH transmissions comprises a minimum processing time for the base station to process autonomous uplink (AUL) transmissions, and wherein the plurality of PUSCH

transmissions comprises a plurality of AUL transmissions.

17. A non-transitory computer-readable medium having program code recorded thereon, the program code comprising: program code executable by a computer for causing the computer to receive, at a user equipment (UE) from a serving base station, a first signal identifying a minimum processing time for the serving base station to process physical uplink shared channel (PUSCH) transmissions from the UE; program code executable by the computer for causing the computer to receive, at the UE, a downlink feedback information (DFI) message from the serving base station, wherein the DFI message includes a bitmap containing acknowledgment information for a plurality of PUSCH transmissions from the UE; and program code executable by the computer for causing the computer to identify, by the UE, whether the plurality of PUSCH transmissions includes one or more acknowledged PUSCH transmissions having a pending time in excess of the minimum processing time and one or more pending PUSCH transmissions having the pending time less than the minimum processing time, by interpreting the bitmap using the minimum processing time identified by the first signal.

18. The non-transitory computer-readable medium of claim 17, further including: program code executable by the computer for causing the computer to identify, by the UE, uplink data for retransmission based on the acknowledgement information associated with the one or more acknowledged PUSCH transmissions; and program code executable by the computer for causing the computer to monitor, by the UE, a subsequent DFI message for the acknowledgement information associated with the one or more pending PUSCH transmissions.

19. The non-transitory computer-readable medium of claim 17, further including: program code executable by the computer for causing the computer to receive, by the UE, a second signal identifying an update time for the UE to apply the updated transmission parameters; and program code executable by the computer for causing the computer to update, by the UE, transmission operations according to the updated transmission parameters, wherein the UE updates the transmission operations at the update time after the program code executable by the computer for causing the computer to receive the DFI with the updated transmission parameters, and wherein the DFI feedback message further includes updated transmission parameters for the UE.

20. The non-transitory computer-readable medium of claim 19, further including: program code executable by the computer for causing the computer to identify, by the UE, a reference slot for a contention window update according to a first available uplink slot satisfying one or both of: the minimum processing time, and the update time.

21. The non-transitory computer-readable medium of claim 19, wherein the first signal identifying the minimum processing time includes the second signal.

22. The non-transitory computer-readable medium of claim 17, wherein the minimum processing time for the base station to process PUSCH transmissions comprises a minimum processing time for the base station to process autonomous uplink (AUL) transmissions, and wherein the plurality of PUSCH transmissions comprises a plurality of AUL transmissions.

23. An apparatus configured for wireless communication, the apparatus comprising: at least one

processor; and a memory coupled to the at least one processor, wherein the at least one processor is configured: to receive, at a user equipment (UE) from a serving base station, a first signal identifying a minimum processing time for the serving base station to process physical uplink shared channel (PUSCH) transmissions from the UE; to receive, at the UE, a downlink feedback information (DFI) message from the serving base station, wherein the DFI message includes a bitmap containing acknowledgment information for a plurality of PUSCH transmissions from the UE; and to identify, by the UE, whether the plurality of PUSCH transmissions includes one or more acknowledged PUSCH transmissions having a pending time in excess of the minimum processing time and whether the plurality of PUSCH transmissions includes one or more pending PUSCH transmissions having the pending time less than the minimum processing time, by interpreting the bitmap using the minimum processing time identified by the first signal.

24. The apparatus of claim 23, wherein the configuration of the at least one processor to receive the first signal identifying the minimum processing time includes configuration to receive the first signal identifying the minimum processing time via one of: a semi-static autonomous uplink (AUL) configuration message; an activation/deactivation downlink control information (DCI) signal; the DFI message; or a system information broadcast signal from the serving base station.

25. The apparatus of claim 23, further including configuration of the at least one processor: to identify, by the UE, uplink data for retransmission based on the acknowledgement information associated with the one or more acknowledged PUSCH transmissions; and to monitor, by the UE, a subsequent DFI message for the acknowledgement information associated with the one or more pending PUSCH transmissions.

26. The apparatus of claim 24, further including configuration of the at least one processor: to receive, by the UE, a second signal identifying an update time for the UE to apply the updated transmission parameters; and to update, by the UE, transmission operations according to the updated transmission parameters, wherein the UE updates the transmission operations at the update time after the configuration of the at least one processor to receive the DFI with the updated transmission parameters, and wherein the DFI feedback message further includes updated transmission parameters for the UE.

27. The apparatus of claim 26, further including configuration of the at least one processor to identify, by the UE, a reference slot for a contention window update according to a first available uplink slot satisfying one or both of: the minimum processing time, and the update time.

28. The apparatus of claim 26, wherein the configuration of the at least one processor to receive the second signal includes configuration of the at least one processor to receive the second signal via one of: a semi-static autonomous uplink (AUL) configuration message; an activation/deactivation downlink control information (DCI) signal; the DFI message; or a system information broadcast signal from the serving base station.

29. The apparatus of claim 26, wherein the first signal identifying the minimum processing time includes the second signal.

30. The apparatus of claim 24, wherein the minimum processing time for the base station to

process PUSCH transmissions comprises a minimum processing time for the base station to process autonomous uplink (AUL) transmissions, and wherein the plurality of PUSCH transmissions comprises a plurality of AUL transmissions.