

EXHIBIT H-3

Summary of Invalidity Analysis of U.S. Patent No. 10,638,463 (“’463 Patent”) in view of U.S. Patent Publication No. 2017/0265176 to Marinier et al. (“Marinier”)

U.S. Patent Publication No. 2017/0265176 to Marinier et al. (“Marinier”), published on September 14, 2017, and was filed on May 31, 2017. Therefore, Marinier qualifies as prior art to the ’463 Patent under at least 35 U.S.C. § 102(a). As described in the following claim chart, at least under Pegasus’s apparent infringement theory, the asserted claims of the ’463 Patent are invalid as expressly and/or inherently anticipated by Marinier.

To the extent that Marinier is found not to anticipate, expressly or inherently, one or more of the asserted claims of the ’463 Patent, at least under Pegasus’s apparent infringement theory, these claims are invalid as obvious in view of Marinier in view of the background knowledge and ordinary creativity of a person having ordinary skill in the art at the time of the alleged invention, or in combination with other prior art identified in the cover pleading, herein, or as disclosed in Defendants’ Invalidity Contentions and accompanying charts and appendices. A person of ordinary skill would have been motivated to combine Marinier and any other prior art references, including but not limited to the other prior art identified in the cover pleading or herein, with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.

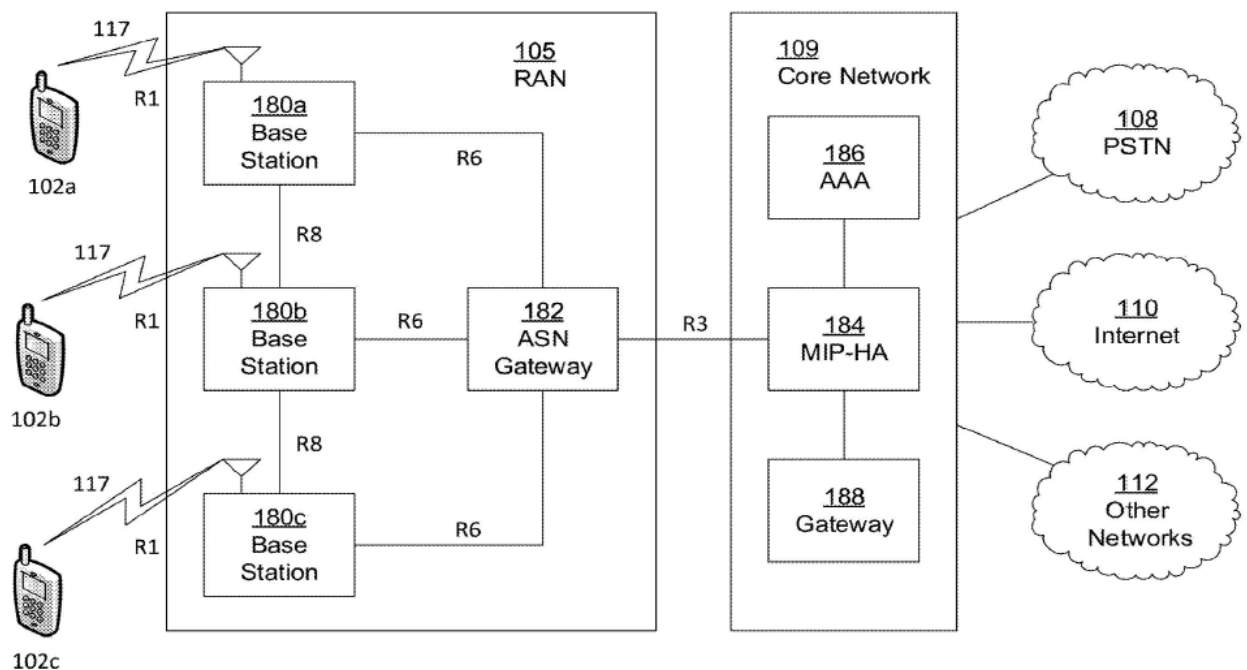
Defendants reserve the right to amend or supplement this invalidity chart at a later date.

1. Claim 1

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1[pre]	A method of transmitting uplink (UL) control information by a user equipment, the method comprising:	To the extent the preamble is limiting, at least under Pegasus’s apparent infringement theory, Marinier discloses “A method of transmitting uplink (UL) control information by a user equipment, the method comprising.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “For example, time segregation may be utilized for preventing conflicts between the uplink transmissions of the plurality of MAC instances. When time segregation is utilized each of the first MAC instance and the second MAC instance may be assigned a respective subset of subframes for transmitting in the uplink. For example, a first subset of subframes may be assigned to the first MAC instance and a second set of subframes may be assigned to the second MAC instance. The subframe subsets may be completely separated or may partially overlap. The first MAC instance and the second MAC instance may utilize non-synchronous subframe timing. The WTRU may determine to drop at least one symbol to be transmitted to the first serving site based on an allocated subframe of the second serving site overlapping with an allocated subframe of the first serving site. The symbol may be dropped in order to allow the WTRU to switch its physical layer configuration

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		in order to transmit to a different serving site. The at least one symbol that is dropped may be the last symbol in the allocated subframe of the first serving site. In an example, the WRU may drop the first symbol of the allocated subframe of the second serving site.” Marinier at [0005]. “Due to limited number of subframes available for uplink transmission, one or more uplink procedures may be modified in order to ensure uplink resources are available for transmission to a given MAC instance. For example, a first hybrid automatic repeat request (HARQ) feedback timing relationship may be applied for transmissions sent using the first MAC instance, and a second HARQ timing relationship may be applied for transmission sent using the second MAC instance.” Marinier at [0006]. “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands. However, if the WTRU transmits in accordance with each of the signaled grants, the combination may result in the WTRU exceeding its maximum transmission power. In this situation, the WTRU may be unable to transmit each signal at the power level requested the receptive schedulers, increasingly the likelihood of a failed transmission.” Marinier at [0064]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received

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		from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site. The UCI transmission to the first site (e.g., sent via the PUCCH, PUSCH, etc.) may conflict with the PUSCH transmission to the second site. Such a situation may cause numerous complications. For example, the WTRU may attempt to include the UCI (e.g., which was request by and/or pertains to transmissions associated with the first serving site) in the PUSCH transmission sent to the second serving site; however, the second serving site may be unaware that the WTRU is including the UCI in the PUSCH transmission, so the second serving site may fail to properly decode one or more of the UCI and/or the entire PUSCH transmission.” Marinier at [0065].

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	 FIG. 1E Marinier at Fig. 1E. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable	

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		expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
1[a]	receiving, from a base station, UL control channel resource set configuration information for UL control information transmission;	At least under Pegasus’s apparent infringement theory, Marinier discloses “receiving, from a base station, UL control channel resource set configuration information for UL control information transmission.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance.” Marinier at Abstract. “As shown in FIG. 1A, the communications system 100 may include wireless transmit/receive units (WTRUs) 102 a, 102 b, 102 c, and/or 102 d (which generally or collectively may be referred to as WTRU 102), a radio access network (RAN) 103/104/105, a core network 106/107/109, a public switched telephone network (PSTN) 108, the Internet 110, and other networks 112, though it will be appreciated that the disclosed embodiments contemplate any number of WTRUs, base stations, networks, and/or network elements. Each of the WTRUs 102 a, 102 b, 102 c, 102 d may be any type of device configured to operate and/or communicate in a wireless environment. By way of example, the WTRUs 102 a, 102 b, 102 c, 102 d may be configured to transmit and/or receive wireless signals and may include user equipment (UE), a mobile station, a fixed or mobile subscriber unit, a pager, a cellular telephone, a personal digital assistant (PDA), a smartphone, a laptop, a netbook, a personal computer, a wireless sensor, consumer electronics, and the like. The communications systems 100 may also include a base station 114 a and a base station 114 b. Each of the base stations 114 a, 114 b may be any type of device configured to wirelessly interface with at least one of the WTRUs 102 a, 102 b, 102 c, 102 d to facilitate access to one or more

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		communication networks, such as the core network 106/107/109, the Internet 110, and/or the networks 112.” Marinier at [0020]-[0021]. “For example, the WTRU 102 c shown in FIG. 1A may be configured to communicate with the base station 114 a, which may employ a cellular-based radio technology, and with the base station 114 b, which may employ an IEEE 802 radio technology.” Marinier at [0031]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for

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		transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “In an example, rather than physical channels being associated with a single serving site, a set of one or more physical channel may be associated with more than one serving site. For example, a given uplink transmission by the WTRU sent over an uplink physical channel may be received by multiple serving sites (e.g., eNBs), for example using a MAC instance that is common to multiple serving sites. Thus, an uplink physical channel (e.g., and/or reference signal) may be used for transmission of data and/or control information associated with more than one serving site, and a downlink physical channel (e.g., and/or reference signal) may be used for reception of data and/or control information associated with more than one serving site. The set of physical channels and/or reference signals used for communication with multiple serving sites may be mapped to a single MAC instance that is associated with each of the serving sites.” Marinier at [0084]. “Multiple sets of subframe subsets may be orthogonal to each other (e.g., non-overlapping in the time domain) and/or may be configured to overlap. For example, if two or more subframe subsets associated with different serving sites overlap, multiple UL transmissions to different serving sites may occur in the same subframe(s). For example, a WTRU may be configured to transmit a PUCCH transmission to a first serving site and a PUSCH transmission to a second serving site in the same subframe. As an example, the WTRU may receive an UL grant for transmission to a first serving site in subframe(n), and the WTRU may also be configured to transmit HARQ feedback via the PUCCH to a second serving site in the same subframe(n). As another example, the WTRU may be configured to transmit HARQ feedback to multiple serving sites in the same subframe.” Marinier at [0106]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer

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		signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset. A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration.” Marinier at [0111]-[0112]. “In an example, rather than or in addition to WTRU-autonomous priority rules, the WTRU may receive one or more explicit indications from the network (e.g., one or more serving sites) for selecting between MAC instances in case of contention. The network based priority indications may be applicable to one or more of non-simultaneous and/or simultaneous use of physical resources. The explicit indication of priority may be received via one or more of L1 signaling (e.g., PHY signaling such as the PDCCH and/or E-PDCCH), L2 signaling (e.g., MAC), and/or L3 signaling (e.g., RRC).

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		For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. . . . In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication.” Marinier at [0172]-[0173]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.).” Marinier at [0182]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an

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		example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on the identity of one or more transmission parameters applied for transmission to another serving site. For example, the WTRU may be preconfigured and/or receive RRC signaling that configures one or more parameters that the WTRU should apply for transmissions to a second serving site based on the parameters/configurations applied to a first serving site. As an example, the second set of parameters to be used for a transmission to a second serving site may be determined and/or derived from a first set of parameters that are indicated in DCI for a first serving site. The WTRU may have a predefined configuration and/or may receive a configuration via higher layer signaling that indicates which parameters are used for transmission to a second serving site when certain other parameters are being used for a concurrent transmission to a first serving site in the same subframe.” Marinier at [0187]. “The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance.” Marinier at [0190].

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	“In an example, the WTRU may receive downlink control signaling (e.g., such as DCI on the E-PDCCH and/or the PDCCH) that instructs the WTRU to assign the corresponding grant to a specific subset of LCHs. For example, the received DCI may include an indication such that the received grant may be used for transmission of data from one or more of a specific LCH(s) (e.g., based on bearer identity), a specific bearer type (e.g., SRB), a specific priority (e.g., such as a WTRU-specific LCH priority), and/or the like.” Marinier at [0262]. FIG. 1E	

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		Marinier at Fig. 1E. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
1[b]	determining one of UL control channel resource sets contained in the UL control channel resource set configuration information;	At least under Pegasus's apparent infringement theory, Marinier discloses "determining one of UL control channel resource sets contained in the UL control channel resource set configuration information." For example, Marinier discloses this limitation based on the following exemplary citations: "Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for

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		transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). . . . A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, rather than physical channels being associated with a single serving site, a set of one or more physical channel may be associated with more than one serving site. For example, a given uplink transmission by the WTRU sent over an uplink physical channel may be received by multiple serving sites (e.g., eNBs), for example using a MAC instance that is common to multiple serving sites. Thus, an uplink physical channel (e.g., and/or reference signal) may be used for transmission of data and/or control information associated with more than one serving site, and a downlink physical channel (e.g., and/or reference signal) may be used for reception of data and/or control information associated with more than one serving site. The set of physical channels and/or reference signals used for communication with multiple serving sites may be mapped to a single MAC instance that is associated with each of the serving sites.” Marinier at [0084]. “Multiple sets of subframe subsets may be orthogonal to each other (e.g., non-overlapping in the time domain) and/or may be configured to overlap. For example, if two or more subframe subsets associated with different serving sites overlap, multiple UL transmissions to different serving sites may occur in the same subframe(s). For example, a WTRU may be configured to transmit a

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		PUCCH transmission to a first serving site and a PUSCH transmission to a second serving site in the same subframe. As an example, the WTRU may receive an UL grant for transmission to a first serving site in subframe(n), and the WTRU may also be configured to transmit HARQ feedback via the PUCCH to a second serving site in the same subframe(n). As another example, the WTRU may be configured to transmit HARQ feedback to multiple serving sites in the same subframe.” Marinier at [0106]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset. A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically

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		through RRC signaling to utilize physical channels in the UL according to a received TDM configuration.” Marinier at [0111]-[0112]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.).” Marinier at [0182]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission.”

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		Marinier at [0186]. “The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance.” Marinier at [0190]. “In an example, the WTRU may receive downlink control signaling (e.g., such as DCI on the E-PDCCH and/or the PDCCH) that instructs the WTRU to assign the corresponding grant to a specific subset of LCHs. For example, the received DCI may include an indication such that the received grant may be used for transmission of data from one or more of a specific LCH(s) (e.g., based on bearer identity), a specific bearer type (e.g., SRB), a specific priority (e.g., such as a WTRU-specific LCH priority), and/or the like.” Marinier at [0262]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.

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1[c]	determining one of UL control channel resources contained in the determined UL control channel resource set; and	At least under Pegasus’s apparent infringement theory, Marinier discloses “determining one of UL control channel resources contained in the determined UL control channel resource set.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance.” Marinier at Abstract. “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites. As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands.” Marinier at [0063]-[0064]. “In an example, physical channels of a given MAC instance may be associated with a specific serving site. For example, a given uplink and/or downlink physical channel may be used for transmission between the WTRU and a single serving site. Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving

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		site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCell). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “One or more physical channels and/or signals (e.g., reference signals) may be associated with each MAC instance. For example, a PUCCH may be associated with a given MAC instance. The PUCCH may be configured to transport uplink control information (e.g., HARQ feedback, channel state information (CSI) such as channel quality indicator (CQI), precoding matrix indicator (PMI), rank indicator (RI), Scheduling Request (SR), etc.) associated with the corresponding MAC instance to the applicable serving site. If multiple MAC instances are configured, multiple PUCCHs may be configured (e.g., one PUCCH for each MAC instance).” Marinier at [0079]. “A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082].

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		“The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0094]. “In an example, in order to facilitate the reception of power control commands that are applicable to a single MAC instance (e.g., and/or a single channel type of a single MAC instance) via any MAC instance maintained by the WTRU, the power control adjustment may include an index that is used to explicitly indicate which MAC instance the power control command is applicable to. For example, the indication (e.g., index) of which MAC instance a power control adjustment is applicable to may be received with the power control command in the DCI via any MAC instance. The indication may also specify what channel the power control command is applicable to. In this

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		manner, any MAC instance may be used to adjust the power of a transmission to be performed using another MAC instance.” Marinier at [0096]. “The WTRU may be configured with a set of UL transmission parameters (e.g., power control parameters, set of virtual cell IDs, dedicated PUCCH resources, etc.) for each site. The WTRU may determine which set of UL transmission parameters to apply based on the subframe subset that includes the subframe in which the UL transmission is to occur.” Marinier at [0104]. “To allocate physical resources for transmission of multiple UL channels that are associated with different serving sites, each channel (e.g., channel type) may be assigned a subset of subframes that may be used for transmission of the channel to its corresponding serving site. In such a scenario, the WTRU may determine which UL transmission parameters to apply based on the type of channel and/or type of transmission being sent in the subframe. In an example, different types of transmissions may be allocated subframe subsets. For example, CQI transmissions may be allocated a first subset of subframes and SRS transmissions may be allocated a second subset of subframes.” Marinier at [0105]. “For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to

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		configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset.” Marinier at [0111]. “A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration. As an example, the TDM configuration may include a bitmap that is indicative of the subframes that are assigned to the WTRU as part of the TDM configuration. The bitmap may include a plurality of bits that each represent a subframe and/or frame which may be utilized by a MAC instance for UL transmissions. For example, a first bit may represent a first subframe or frame, and a 1 may indicate that the first subframe or frame is assigned to the WTRU as part of its subframe subset, while a 0 may indicate that the first subframe or frame is not assigned to the WTRU as part of its subframe subset. The bitmap may be specific to a certain MAC instance and/or may be specific to a certain physical channel of the MAC instance. The bits of the bitmap may each correspond to a plurality of subframes, for example subframes in a repeating pattern. For example, a first bit may recommend a first subframe of each frame in the UL. The bitmap may be used for assigning subframes for UL and/or DL transmission to a serving site. In an example, the bitmap may be used to indicate which MAC instance a given subframe is associated with. For example, a first bit of the bitmap may be indicative of whether the subframes associated with the bit (e.g., identified with a subframe number and/or frame number) are associated with a first MAC instance or a second MAC instance. The bitmap configuration may be indicative of a pattern of subframe usage. For example, the series of bits of the bitmap may represent a plurality of sets of predetermined subframe subsets. The WTRU may indicate to the network/serving site a preferred subframe subset, for example using the bitmap. In an example, the TDM configuration may be indicated as one of set of predefined TDM subframe configurations. The predefined subframe TDM configuration(s) may establish for each subframe whether the subframe is used by a first MAC

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		instance or by a second MAC instance. Such configuration may also indicate certain subframes where certain symbols of a subframe are not used for transmission for any MAC instance (e.g., a transmission gap), for instance in case the WTRU is to switch from one MAC instance to another. The WTRU may determine which site to transmit UCI to and/or when to transmit UCI based on the assigned TDM configuration (e.g., subframe subset configuration). For example, which subframe to use for transmitting UCI may be determined based on the identity of the MAC instance assigned to the subframe and/or the identity of the MAC instance that is associated with the UCI. For instance, the WTRU may determine the maximum number of PDSCH transmissions for which HARQ feedback is to be provided (e.g., on PUSCH and/or PUCCH) in a subsequent subframe based on the assigned TDM configurations for the different MAC instances. If the WTRU determines that more feedback is to be provided in a given subframe than its assigned resources may support (e.g., UCI is to be provided to both a first serving site and a second serving site in a subframe assigned to only the first serving site), the WTRU may determine to multiplex and/or otherwise bundle the UCI/feedback and transmit the bundled UCI/feedback to the single assigned serving site.” Marinier at [0112]-[0113]. “A serving site may configure the WTRU to monitor unique ePDCCH resources. For example, each ePDCCH may use different resources (e.g., different RB(s) and/or different subframe configurations, etc.). The resources used for ePDCCH may indicate to the WTRU the appropriate resources to use in UL for that site. For example, there may be an implicit mapping between the DL resources used for ePDCCH transmission and the UL resources to be used for transmitting over to a given serving site.” Marinier at [0149]. “The configuration of the OCC to be used at a given serving site may be performed in a manner similar to those described with respect to configuring subframe subsets for a serving site (e.g., time segregation) and/or BW parts of the serving site (e.g., frequency segregation). Code segregation for a given serving site may be performed in addition to time segregation and/or frequency segregation. A WTRU may be configured with an OCC to be used for PUCCH transmissions. The OCC may be indicated in the initial PUCCH configuration for the serving site. The OCC to be used

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		for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission.” Marinier at [0155]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.). In an example, the WTRU may implicitly determine one or more parameters (e.g., and/or one or more sets of parameters). For example, the WTRU may implicitly determine one or more one or more parameters (e.g., and/or one or more sets of parameters) for a first layer/serving site based on one or more parameters (e.g., and/or one or more sets of parameters) that are applied at a second layer/serving site.” Marinier at [0182]. <i>See also id.</i> at [0183]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission

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		parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “The WTRU may be configured to indicate the set of transmission parameters used for a PUSCH transmission in the PUSCH transmission. For example, the WTRU may be configured to multiplex UCI with the PUSCH data being transmitted, and the UCI may indicate one or more of the transmission parameters that were used by the WTRU to send the PUSCH transmission. For example, in a PUSCH transmission where the WTRU may select between two or more sets of PUSCH transmission parameters, the WTRU may indicate which set of parameters has been selected and/or which values were used for certain parameters. The selection may be encoded and multiplexed as UCI with UL-SCH data into the PUSCH transmission in predetermined resource elements.” Marinier at [0195]. “In an example, a WTRU may be preconfigured with a set of multiple values for k, and each DL subframe may be associated with a corresponding (e.g., semi-statically configured) value for k. For example, subframe(0) of a frame may use a first value for k that results in a valid UL subframe for transmitting HARQ-ACK, while subframe(1) of a frame may use a second value for k that results in a valid UL subframe for transmitting HARQ-ACK, etc. In an example, for each DL subframe a different set of PUCCH resources may be used. For example, the WTRU may be preconfigured with a set of PUCCH resources (e.g., $N_{\text{PUCCH}}^{(1)}$) that are specific to a given DL subframe.” Marinier at [0205]. <i>See also id.</i> at [0206].

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		“In an example, a first HARQ-ACK to be transmitted in a given subframe may be sent using a first set of PUCCH resources, while a second HARQ-ACK to be transmitted in the given subframe may be sent using a second set of PUCCH resources. The determination of which HARQ-ACK should be assigned to a given PUCCH resource may be preconfigured and/or may be determined based on a priority rule. For example, the priority may be based on which PDSCH transmission was received first in time by the WTRU. In an example, if a single HARQ-ACK is to be transmitted in a given subframe then the a single HARQ-ACK may be sent using a first set of PUCCH resources, and if two or more HARQ-ACKs are to be sent in the subframe, the two or more HARQ-ACKs may be bundled or multiplexed that are sent using another set of PUCCH resources. In an example, the number of PUCCH resources included in a bundle may be used to determine which PUCCH resource should be used. For example, one HARQ-ACK (e.g., unbundled) may be sent using a first set of PUCCH resources, two bundled HARQ-ACKs may be sent using a second set of PUCCH resources, three bundled or multiplexed HARQ-ACKs may use a third set of PUCCH resources, and so on.” Marinier at [0212]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
1[d]	transmitting UL control information through the determined UL control channel resource,	At least under Pegasus’s apparent infringement theory, Marinier discloses “transmitting UL control information through the determined UL control channel resource.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are

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		independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance.” Marinier at Abstract. “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “Due to limited number of subframes available for uplink transmission, one or more uplink procedures may be modified in order to ensure uplink resources are available for transmission to a given MAC instance. For example, a first hybrid automatic repeat request (HARQ) feedback timing relationship may be applied for transmissions sent using the first MAC instance, and a second HARQ timing relationship may be applied for transmission sent using the second MAC instance.” Marinier at [0006]. “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel

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		(PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites. As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands.” Marinier at [0063]-[0064]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site.” Marinier at [0065]. “In an example, physical channels of a given MAC instance may be associated with a specific serving site. For example, a given uplink and/or downlink physical channel may be used for transmission between the WTRU and a single serving site. Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second

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		serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “One or more physical channels and/or signals (e.g., reference signals) may be associated with each MAC instance. For example, a PUCCH may be associated with a given MAC instance. The PUCCH may be configured to transport uplink control information (e.g., HARQ feedback, channel state information (CSI) such as channel quality indicator (CQI), precoding matrix indicator (PMI), rank indicator (RI), Scheduling Request (SR), etc.) associated with the corresponding MAC instance to the applicable serving site. If multiple MAC instances are configured, multiple PUCCHs may be configured (e.g., one PUCCH for each MAC instance).” Marinier at [0079]. “A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-

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		PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0094]. “In an example, in order to facilitate the reception of power control commands that are applicable to a single MAC instance (e.g., and/or a single channel type of a single MAC instance) via any MAC instance maintained by the WTRU, the power control adjustment may include an index that is used to explicitly indicate which MAC instance the power control command is applicable to. For example, the indication (e.g., index) of which MAC instance a power control adjustment is applicable to may be received with the power control command in the DCI via any MAC instance. The indication may also specify what channel the power control command is applicable to. In this manner, any MAC instance may be used to adjust the power of a transmission to be performed using another MAC instance.” Marinier at [0096]. “The WTRU may be configured with a set of UL transmission parameters (e.g., power control parameters, set of virtual cell IDs, dedicated PUCCH resources, etc.) for each site. The WTRU may determine which set of UL transmission parameters to apply based on the subframe subset that includes the subframe in which the UL transmission is to occur.” Marinier at [0104].

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		“To allocate physical resources for transmission of multiple UL channels that are associated with different serving sites, each channel (e.g., channel type) may be assigned a subset of subframes that may be used for transmission of the channel to its corresponding serving site. In such a scenario, the WTRU may determine which UL transmission parameters to apply based on the type of channel and/or type of transmission being sent in the subframe. In an example, different types of transmissions may be allocated subframe subsets. For example, CQI transmissions may be allocated a first subset of subframes and SRS transmissions may be allocated a second subset of subframes.” Marinier at [0105]. “For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset.” Marinier at [0111]. “A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically

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		through RRC signaling to utilize physical channels in the UL according to a received TDM configuration. As an example, the TDM configuration may include a bitmap that is indicative of the subframes that are assigned to the WTRU as part of the TDM configuration. The bitmap may include a plurality of bits that each represent a subframe and/or frame which may be utilized by a MAC instance for UL transmissions. For example, a first bit may represent a first subframe or frame, and a 1 may indicate that the first subframe or frame is assigned to the WTRU as part of its subframe subset, while a 0 may indicate that the first subframe or frame is not assigned to the WTRU as part of its subframe subset. The bitmap may be specific to a certain MAC instance and/or may be specific to a certain physical channel of the MAC instance. The bits of the bitmap may each correspond to a plurality of subframes, for example subframes in a repeating pattern. For example, a first bit may recommend a first subframe of each frame in the UL. The bitmap may be used for assigning subframes for UL and/or DL transmission to a serving site. In an example, the bitmap may be used to indicate which MAC instance a given subframe is associated with. For example, a first bit of the bitmap may be indicative of whether the subframes associated with the bit (e.g., identified with a subframe number and/or frame number) are associated with a first MAC instance or a second MAC instance. The bitmap configuration may be indicative of a pattern of subframe usage. For example, the series of bits of the bitmap may represent a plurality of sets of predetermined subframe subsets. The WTRU may indicate to the network/serving site a preferred subframe subset, for example using the bitmap. In an example, the TDM configuration may be indicated as one of set of predefined TDM subframe configurations. The predefined subframe TDM configuration(s) may establish for each subframe whether the subframe is used by a first MAC instance or by a second MAC instance. Such configuration may also indicate certain subframes where certain symbols of a subframe are not used for transmission for any MAC instance (e.g., a transmission gap), for instance in case the WTRU is to switch from one MAC instance to another. The WTRU may determine which site to transmit UCI to and/or when to transmit UCI based on the assigned TDM configuration (e.g., subframe subset configuration). For example, which subframe to use for transmitting UCI may be determined based on the identity of the MAC instance assigned to the subframe and/or the identity of the MAC instance that is associated with the UCI. For instance, the WTRU may determine the maximum number of PDSCH transmissions for which HARQ feedback is to be provided (e.g., on PUSCH and/or PUCCH) in a subsequent subframe based on the assigned TDM configurations for the different MAC instances. If the WTRU

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		determines that more feedback is to be provided in a given subframe than its assigned resources may support (e.g., UCI is to be provided to both a first serving site and a second serving site in a subframe assigned to only the first serving site), the WTRU may determine to multiplex and/or otherwise bundle the UCI/feedback and transmit the bundled UCI/feedback to the single assigned serving site.” Marinier at [0112]-[0113]. “A serving site may configure the WTRU to monitor unique ePDCCH resources. For example, each ePDCCH may use different resources (e.g., different RB(s) and/or different subframe configurations, etc.). The resources used for ePDCCH may indicate to the WTRU the appropriate resources to use in UL for that site. For example, there may be an implicit mapping between the DL resources used for ePDCCH transmission and the UL resources to be used for transmitting over to a given serving site.” Marinier at [0149]. “The configuration of the OCC to be used at a given serving site may be performed in a manner similar to those described with respect to configuring subframe subsets for a serving site (e.g., time segregation) and/or BW parts of the serving site (e.g., frequency segregation). Code segregation for a given serving site may be performed in addition to time segregation and/or frequency segregation. A WTRU may be configured with an OCC to be used for PUCCH transmissions. The OCC may be indicated in the initial PUCCH configuration for the serving site. The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission.” Marinier at [0155]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of

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		layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.). In an example, the WTRU may implicitly determine one or more parameters (e.g., and/or one or more sets of parameters). For example, the WTRU may implicitly determine one or more one or more parameters (e.g., and/or one or more sets of parameters) for a first layer/serving site based on one or more parameters (e.g., and/or one or more sets of parameters) that are applied at a second layer/serving site.” Marinier at [0182]. <i>See also id.</i> at [0183]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186].

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		“The WTRU may be configured to indicate the set of transmission parameters used for a PUSCH transmission in the PUSCH transmission. For example, the WTRU may be configured to multiplex UCI with the PUSCH data being transmitted, and the UCI may indicate one or more of the transmission parameters that were used by the WTRU to send the PUSCH transmission. For example, in a PUSCH transmission where the WTRU may select between two or more sets of PUSCH transmission parameters, the WTRU may indicate which set of parameters has been selected and/or which values were used for certain parameters. The selection may be encoded and multiplexed as UCI with UL-SCH data into the PUSCH transmission in predetermined resource elements.” Marinier at [0195]. “In an example, a WTRU may be preconfigured with a set of multiple values for k, and each DL subframe may be associated with a corresponding (e.g., semi-statically configured) value for k. For example, subframe(0) of a frame may use a first value for k that results in a valid UL subframe for transmitting HARQ-ACK, while subframe(1) of a frame may use a second value for k that results in a valid UL subframe for transmitting HARQ-ACK, etc. In an example, for each DL subframe a different set of PUCCH resources may be used. For example, the WTRU may be preconfigured with a set of PUCCH resources (e.g., $N_{\text{PUCCH}}^{(1)}$) that are specific to a given DL subframe.” Marinier at [0205]. <i>See also id.</i> at [0206]. “In an example, a first HARQ-ACK to be transmitted in a given subframe may be sent using a first set of PUCCH resources, while a second HARQ-ACK to be transmitted in the given subframe may be sent using a second set of PUCCH resources. The determination of which HARQ-ACK should be assigned to a given PUCCH resource may be preconfigured and/or may be determined based on a priority rule. For example, the priority may be based on which PDSCH transmission was received first in time by the WTRU. In an example, if a single HARQ-ACK is to be transmitted in a given subframe then the a single HARQ-ACK may be sent using a first set of PUCCH resources, and if two or more HARQ-ACKs are to be sent in the subframe, the two or more HARQ-ACKs may be bundled or multiplexed that are sent using another set of PUCCH resources. In an example, the number of PUCCH resources included in a bundle may be used to determine which PUCCH resource should be used. For example, one HARQ-ACK (e.g., unbundled) may be sent using a first

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		set of PUCCH resources, two bundled HARQ-ACKs may be sent using a second set of PUCCH resources, three bundled or multiplexed HARQ-ACKs may use a third set of PUCCH resources, and so on.” Marinier at [0212]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
1[e]	wherein the UL control channel resource sets are configured for each UL bandwidth part (BWP) configured for the user equipment, and	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the UL control channel resource sets are configured for each UL bandwidth part (BWP) configured for the user equipment.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.”

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		Marinier at [0004]. “In an example, frequency segregation may be utilized. For example, the WTRU may transmit using a first carrier when sending transmission associated with the first MAC instance, and the WTRU may transmit using a second carrier when sending transmission associated with the second MAC instance. The carriers may be separated in the frequency domain.” Marinier at [0007]. “As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands.” Marinier at [0064]. “For example, the WTRU may be configured to operate with one or more serving sites (e.g., also referred to as serving eNBs) in the downlink and/or the uplink. Each serving site may be associated with one or more serving cells. For example, a WTRU may operate using a single serving cell (e.g., component carrier) at first serving site (e.g., a MeNB) and may operate using a plurality of serving cells (e.g., a plurality of component carriers) at a second serving site (e.g., a SCell). Thus, a serving site may be associated with a plurality of serving cells. Each serving cell of a given serving site may be configured for operation at a corresponding component carrier (CC). A serving site may support one or multiple CCs. Each CC within a serving site may operate using a different frequency range than other CCs of the serving site, so that each of the serving cells associated with a given serving site may be transmitted using a different CC. However, serving cells from different serving sites may be transmitted using the same CC. Therefore, serving cells may be associated with the same CC but with different serving sites.” Marinier at [0072]. “As an example, frequency segregation may be performed in order to transmit to multiple serving sites in the same subframe. Frequency segregation may be used in addition to time segregation and/or without time segregation. For example, if a partially overlapping time segregation scheme is utilized, frequency segregation may also be utilized, for example for subframes for which there

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		is partial overlap and/or for all subframes. For example, a WTRU may be configured with one of more frequency subband subsets for one or more serving sites. For example, if its first cell of a first serving site operates in the same frequency band and/or component carrier of a second cell of a second serving site, the MAC instances associated with the different serving sites may be configured to use different subband subsets within the frequency band/component carrier. In an example, the bandwidth (BW) utilized by the different serving sites may be divided into a plurality of BW parts. Each serving site may be configured to utilize one or more of the BW parts for communicating with the WTRU. For example, each BW part may be treated as a component carrier in carrier aggregation. For example, each BW part may include corresponding PUCCH and PUSCH resources. Some bandwidth parts may include PUCCH without a PUSCH (e.g., for CSI reporting to a serving site) and/or PUSCH without PUCCH.” Marinier at [0131]. “A WTRU may be configured to transmit signals that span multiple BW parts. For example, a single SRS sequence may be transmitted over a full BW of a cell and/or serving site, which may span a plurality of BW parts. In an example, a WTRU may transmit different SRSs (e.g., each with its own set of parameters) for each BW part. The transmission power utilized by the WTRU may be specific to which BW part is used for transmission. For example, a WTRU may be configured with an independent maximum transmit powers (e.g., PCMAX) per BW part. For example, the WTRU may be perform UL transmission power control independently for each BW part. In another example, the WTRU may be configured with a single maximum transmit power value (e.g., PCMAX) for the entire BW. For example, if the maximum transmit power is determined across the whole BW, the WTRU may first determine the power to be utilized for PUCCH transmission in a given subframe, and may then allocate remaining power below the maximum transmit power for use transmitting the PUSCH. The PUCCH and PUSCH may be configured for transmission using power control parameters that are specific to the serving site associated with the channel transmission.” Marinier at [0133]-[0134]. “The WTRU may determine the configuration of the different BW parts and/or the network (e.g., one or more serving sites) may determine the configuration of BW parts. For example, the BW

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		parts may be configured in a manner similar to subframe subsets are configured for time segregation. For example, any of the methods described herein for configured a subframe subset may be used for configuring a BW part for a given serving site and/or set of serving sites.” Marinier at [0139]. “In an example, an RRC message similar to a handover command may be received from a first serving site to which the WTRU is already connected, and the message may trigger the WTRU to perform an initial access procedure to a second serving site. For example, the RRC message may include dedicated PRACH resources and/or a dedicated preamble to be used for the RACH on the PRACH resources of the second serving site. The subbands (and/or BW part) within which a WTRU may attempt RACH may implicitly indicate whether or not the WTRU has an established radio link to another serving site (e.g., if RACH is performed in a first BW part the WTRU may have an established connection to a different serving site, if the WTRU attempts RACH in a second BW part the WTRU may lack a connection to another serving site). The PRACH resource used for the transmission of a preamble may indicate whether or not it has a radio link to another site. For example, certain dedicated RACH preambles and/or certain PRACH resources may be reserved for access attempts performed by WTRUs with an established connection to a different serving site. The WTRU may indicate whether the RACH is for the establishment of a secondary RRC connection or a primary RRC connection.” Marinier at [0152]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.

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1[f]	wherein the each UL BWP is activated through downlink (DL) control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the each UL BWP is activated through downlink (DL) control information.” For example, Marinier discloses this limitation based on the following exemplary citations: “As an example, frequency segregation may be performed in order to transmit to multiple serving sites in the same subframe. Frequency segregation may be used in addition to time segregation and/or without time segregation. For example, if a partially overlapping time segregation scheme is utilized, frequency segregation may also be utilized, for example for subframes for which there is partial overlap and/or for all subframes. For example, a WTRU may be configured with one of more frequency subband subsets for one or more serving sites. For example, if a first cell of a first serving site operates in the same frequency band and/or component carrier of a second cell of a second serving site, the MAC instances associated with the different serving sites may be configured to use different subband subsets within the frequency band/component carrier. In an example, the bandwidth (BW) utilized by the different serving sites may be divided into a plurality of BW parts. Each serving site may be configured to utilize one or more of the BW parts for communicating with the WTRU. For example, each BW part may be treated as a component carrier in carrier aggregation. For example, each BW part may include corresponding PUCCH and PUSCH resources. Some bandwidth parts may include PUCCH without a PUSCH (e.g., for CSI reporting to a serving site) and/or PUSCH without PUCCH.” Marinier at [0131]. “A WTRU may be configured to transmit signals that span multiple BW parts. For example, a single SRS sequence may be transmitted over a full BW of a cell and/or serving site, which may span a plurality of BW parts. In an example, a WTRU may transmit different SRSs (e.g., each with its own set of parameters) for each BW part. The transmission power utilized by the WTRU may be specific to which BW part is used for transmission. For example, a WTRU may be configured with an independent maximum transmit powers (e.g., PCMAX) per BW part. For example, the WTRU may be perform UL transmission power control independently for each BW part. In another example, the WTRU may be configured with a single maximum transmit power value (e.g., PCMAX) for the entire BW. For example, if the maximum transmit power is determined across the whole BW, the WTRU may first determine

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		the power to be utilized for PUCCH transmission in a given subframe, and may then allocate remaining power below the maximum transmit power for use transmitting the PUSCH. The PUCCH and PUSCH may be configured for transmission using power control parameters that are specific to the serving site associated with the channel transmission.” Marinier at [0133]-[0134]. “The WTRU may determine the configuration of the different BW parts and/or the network (e.g., one or more serving sites) may determine the configuration of BW parts. For example, the BW parts may be configured in a manner similar to subframe subsets are configured for time segregation. For example, any of the methods described herein for configured a subframe subset may be used for configuring a BW part for a given serving site and/or set of serving sites.” Marinier at [0139]. “In order for a WTRU to receive multiple DL transmissions on the same carrier (or on different carriers), the WTRU may be configured with time segregation or frequency segregation for DL transmissions in a manner similar to that as described for UL transmission. For example, a serving site/cell may indicate to the WTRU the amount of traffic it has buffered for that WTRU. The WTRU may obtain such the buffer metrics for each serving site. The WTRU may use the metric to determine ratio of resources (e.g., time resources, frequency resources, etc.) to be allocated for each serving site. The WTRU may request the appropriate amount of resources from each sites. If there was a previous allocation of resources that is still active, the WTRU may request modification of resources (e.g., fewer subframes assigned to a first serving site and/or a larger number of subframes assigned to a second serving site; fewer BW parts assigned to a first serving site and/or a larger BW parts of subframes assigned to a second serving site; etc.).” Marinier at [0146]. “In an example, an RRC message similar to a handover command may be received from a first serving site to which the WTRU is already connected, and the message may trigger the WTRU to perform an initial access procedure to a second serving site. For example, the RRC message may include dedicated PRACH resources and/or a dedicated preamble to be used for the RACH on the PRACH resources of the second serving site. The subbands (and/or BW part) within which a

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		WTRU may attempt RACH may implicitly indicate whether or not the WTRU has an established radio link to another serving site (e.g., if RACH is performed in a first BW part the WTRU may have an established connection to a different serving site, if the WTRU attempts RACH in a second BW part the WTRU may lack a connection to another serving site). The PRACH resource used for the transmission of a preamble may indicate whether or not it has a radio link to another site. For example, certain dedicated RACH preambles and/or certain PRACH resources may be reserved for access attempts performed by WTRUs with an established connection to a different serving site. The WTRU may indicate whether the RACH is for the establishment of a secondary RRC connection or a primary RRC connection.” Marinier at [0152]. “In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0173]. <i>See also id.</i> at [0174]-[0175]. “One or more sets of transmission parameters to be applied during periods of concurrent transmission to different serving sites in the same subframe may be applicable for a predetermined period of time and/or bounded in time. The WTRU may determine when to start and/or stop deriving a second set of transmission parameters for a given MAC instance or for a specific PUSCH according various criteria. For example, the WTRU may determine whether or not to utilize separate transmission parameters for transmissions to different serving sites and/or for how long the separate parameters should be used based on explicit signaling. The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may

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		indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance. In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 2 (e.g., MAC CE) signaling, for example as part of an indication for the concerned MAC instance or for one or more of the serving cells of the MAC instance. In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances. The WTRU may determine when to begin and/or stop determining and/or utilizing a second, separate set of transmission parameters for a given MAC instance and/or for a specific PUSCH based on the activation of MAC instance and/or the deactivation of a MAC instance. For example, the WTRU may be triggered to begin determining a separate set of transmission parameters for a given MAC instance based on the activation of the given MAC instance and/or the activation of a different MAC instance. The WTRU may be triggered to stop determining a separate set of transmission parameters for a given MAC instance based on the deactivation of the given MAC instance and/or the deactivation of a different MAC instance.” Marinier at [0190]-[0191]. “The WTRU may include PH information for each configured and/or activated MAC instance in a PHR transmitted to a specific serving site. In an example, the PH information may be reported for transmissions related to a PCell of each MAC instance, but not to SCells associated with the MAC instances. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on various criteria. For example, the WTRU may be triggered to send a PHR to one or more serving sites based on one or more of MAC instance/layer activation, MAC instance/layer deactivation,

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		applying power scaling to a transmission in a given layer, a QoS requirement not being met in a given layer, and/or the like. For example, the WTRU may be triggered to send a PHR to one or more serving sites based on a MAC instance/layer being activated and/or deactivated. For example, the WTRU may trigger a PHR to be sent based on WTRU receiving control signaling that configures a MAC instance of the WTRU configuration. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU removing a MAC instance that the WTRU was previously using and/or configured to use (e.g., following reception of control signaling deactivating the layer; the WTRU determining RLF for the concerned layer; other impairment events for the concerned layer; etc.). As an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that activates a MAC instance of the WTRU configuration. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU deactivating a MAC instance of the WTRU configuration. The deactivation may be based on reception of control signaling indicating the layer should be deactivate and/or following the expiration of a timer indicting deactivation (e.g., WTRU-autonomous deactivation). In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that schedules the first transmission for a concerned MAC instance after the concerned MAC instance was last configured and/or activated (e.g., the first PUSCH transmission). In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that schedules the first transmission for a MAC instance/layer since the WTRU last deactivated, removed, and/or otherwise invalidated one or more other MAC instances (e.g., the first scheduled PUSCH transmission).” Marinier at [0220]-[0222] “In an example, the WTRU may be triggered to generate and/or send a QSR based on reception of control signaling that deactivates a MAC instance (e.g., upon deactivation of a secondary MAC instance). For example, the QSR may be generated based on a MAC instance being deactivated while there is still some data in the WTRU buffer(s) for the deactivated MAC instance. In an example, the QSR may be triggered if the WTRU has data buffered for a LCH/LCG associated with the deactivated MAC instance that is not mapped to any other layers. Such a QSR may be a

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		trigger for radio bearer mobility for radio bearers of the deactivated MAC instance. In an example, the WTRU may be triggered to generate and/or send a QSR for multi-flow bearers (e.g., bearers mapped to multiple MAC instances/layers) that were utilized by a deactivate MAC instance. Such a QSR may be used to make scheduling adjustments due to the change of available resources for a given WTRU.” Marinier at [0235]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
2	The method according to claim 1, wherein the determining of the one of the UL control channel resource sets is performed based on a size of the UL control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the determining of the one of the UL control channel resource sets is performed based on a size of the UL control information.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may determine one or more transmission parameters to be applied for a given uplink grant in a first layer (e.g., associated with a first serving site and/or a first MAC instance) based on the parameters applied to an uplink transmission in a second layer (e.g., associated with a second serving site and/or a second MAC instance). For example, for a subframe during which concurrent/simultaneous UL transmission is to be performed for more than one MAC instance/layer, the WTRU may be configured to select one or more transmission parameters to use for a PUSCH transmission in a first layer associated with a first serving site (e.g., and/or MAC instance) based on the existence of a transmission in a second layer associated with a first serving site (e.g., the parameters used in the first layer may change depending on whether or not a transmission in a second layer is to occur concurrently) and/or based on one more characteristics

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		of UL transmission on the second layer. For example, one or more of a modulation and coding scheme (MCS), a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission in a first layer associated with a first serving site may be selected based on whether or not transmission is to be sent to a second serving site concurrently. In an example, one or more of an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission in a first layer associated with a first serving site may be selected based the identity of one or more uplink transmission parameters to be used for concurrent transmission to a second serving site (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission to the second serving site).” Marinier at [0183]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may be configured with a first configuration (e.g., a layer-specific configuration) for performing logical channel prioritization. The first configuration (e.g., a layer-specific configuration) may include one or more of a PBR configuration (e.g., prioritizedBitRate,

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		bucketSizeDuration, etc.), a priority for a one or more radio bearer and/or logical channel (LCH), and/or the like. For example, the first configuration may be received for a LCH that is configured for multi-flow operation.” Marinier at [0258]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
3[a]	The method according to claim 1, further comprising receiving, from the base station, downlink (DL) control information containing information indicating the one of the UL control channel resources for the UL control information transmission,	At least under Pegasus’s apparent infringement theory, Marinier discloses “receiving, from the base station, downlink (DL) control information containing information indicating the one of the UL control channel resources for the UL control information transmission.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “n an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site.”

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		Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCellNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “A PDCCH and/or enhanced PDCCH (E-PDCCH) may be associated with each serving cell of a given MAC instance. For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). If carrier aggregation is used and the carrier indication field (CIF) is configured for a given MAC instance, then the WTRU may attempt to receive the PDCCH and/or E-PDCCH in PCell of the MAC instance, but not on the zero or more SCells associated with the MAC instance. More than one E-PDCCH set may be configured for a given serving cell associated with a MAC instance. A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power

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		control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, the identity of the MAC instance that a received power control adjustment is applicable to may be determined based on the identity of the MAC instance used for to receive the DCI that included the corresponding TPC command field.” Marinier at [0092]. “For example, a field in the DCI used to send the power control command (e.g., via a PDCCH of one or more MAC instances) may be used to indicate to the WTRU whether the power control command is a global power control command or a power control command that is specific to a given MAC instance (e.g., the MAC instance over which the power control command was received). The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the

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		WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0093]-[0094]. “For example, DCI included in a PDCCH transmission associated with a first MAC instance may be received in subframe(n). The DCI may indicate a power control adjustment for SRS. In subframe(n+k), SRS may be scheduled for one or more MAC instances, for example a second MAC instance. The WTRU may determine to apply the power control command received in subframe(n) of the first MAC instance to the transmission of SRS in subframe(n+k) via the second MAC instance. Thus, the power control adjustment received in subframe(n) may be valid even though the MAC instance used for transmission of the DCI that included the power control command may be different than that used for transmitting in the uplink. Such a scheme may be used when SRS may be used by multiple reception points in the network (e.g., multiple serving sites)” Marinier at [0095]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “The network may indicate the density and/or pattern of subframes assigned to the WTRU when transmitting an UL grant on DCI Format 0/4 to the WTRU (e.g., and/or when transmitting another

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		type of DCI). If the WTRU has already been allocated a subset of subframes for use at another serving site, the WTRU may indicate its current subframe subset pattern for the other site(s) to a serving site from which the WTRU is requesting a new subframe subset. Rather than or in addition to sending an indication of its current subframe subset pattern associated with other serving site(s) when requesting a subframe subset from a different serving site, the WTRU may indicate to the different serving site that it is currently configured for UL transmission with another site during the subframe subset request (e.g., by identifying the other serving sites by serving site ID and/or cell ID). Such an indication may trigger the different serving sites to exchange information related to the current subframe subsets and/or negotiate a new subframe subset for one or more of the serving sites (e.g., over X2, X2bis, or any other interface between the two serving sites).” Marinier at [0109]. “The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission. In an example, the OCC to be used for PUCCH for transmitting HARQ feedback may be assigned based on the DCI used for downlink assignment.” Marinier at [0105]. “For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. For example, the flag and/or other indication may indicate that the grant will have a specific priority, for example a priority that is different that a default priority for a typical grant of the given type. The WTRU may use the indication of priority when performing logical channel prioritization such that data with a corresponding priority may be included in the MAC PDU that may be transmitted in the transport block that corresponds to the received grant. In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication. The WTRU may implicitly determine that such priority may be applied to

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		the preamble transmission as a function of the indicated PRACH parameter (e.g., preamble index, PRACH mask index, etc.) and or associated PRACH resource (e.g., in case partitioning or PRACH is configured). [0173] In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0172]-[0173]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186].

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		“In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on a second set of DCI that is received for the subframe. For example, first DCI may be received and may define a set of transmission parameters to be applied for transmitting to the first serving site, and second DCI may be received and may define a set of transmission parameters to be applied for transmitting to the second serving site. The DCI for the first serving site may be received via a PDCCH and/or E-PDCCH transmission from the first serving site, and the DCI for the second serving site may be received via a PDCCH and/or E-PDCCH transmission from the second serving site. In another example, the DCI for both serving sites may be received from one of the serving sites. In a subframe during which the WTRU successfully decodes a plurality of DCI messages indicating an uplink grant for the same PUSCH, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power. In an example, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power while minimizing (and/or avoiding) the application of power reduction and/or power scaling for the allocated PUSCH transmissions.” Marinier at [0189]. “In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances.” Marinier at [0190]. “The WTRU may thus be configured to use a different subframe offset for HARQ-ACK for different subframe subset configurations. For example, the WTRU may be preconfigured with multiple different value of k that may be used for determining the subframe(n+k) that is used for transmitting HARQ-ACK to a serving site that transmitted a DL transmission in subframe(n).

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		Which value of k should be used for a given DL transmission may be dynamically indicated in the DCI that includes the downlink assignment for subframe(n). In an example, the WTRU may be configured to transmit the HARQ-ACK in any valid UL subframe (e.g., the first valid UL subframe) on or after subframe(n+k).” Marinier at [0204]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
3[b]	wherein the one of the UL control channel resources is indicated from the base station through the DL control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the one of the UL control channel resources is indicated from the base station through the DL control information.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063].

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		“n an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “A PDCCH and/or enhanced PDCCH (E-PDCCH) may be associated with each serving cell of a given MAC instance. For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). If carrier aggregation is used and the carrier indication field (CIF) is configured for a given MAC instance, then the WTRU may attempt to receive the PDCCH and/or E-PDCCH in PCell of the MAC instance, but not on the zero or more SCells associated with the MAC instance. More than one E-PDCCH set may be configured for a given serving cell associated

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		with a MAC instance. A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, the identity of the MAC instance that a received power control adjustment is applicable to may be determined based on the identity of the MAC instance used for to receive the DCI that included the corresponding TPC command field.” Marinier at [0092]. “For example, a field in the DCI used to send the power control command (e.g., via a PDCCH of one or more MAC instances) may be used to indicate to the WTRU whether the power control command is a global power control command or a power control command that is specific to a given MAC instance (e.g., the MAC instance over which the power control command was received). The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a

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		second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0093]-[0094]. “For example, DCI included in a PDCCH transmission associated with a first MAC instance may be received in subframe(n). The DCI may indicate a power control adjustment for SRS. In subframe(n+k), SRS may be scheduled for one or more MAC instances, for example a second MAC instance. The WTRU may determine to apply the power control command received in subframe(n) of the first MAC instance to the transmission of SRS in subframe(n+k) via the second MAC instance. Thus, the power control adjustment received in subframe(n) may be valid even though the MAC instance used for transmission of the DCI that included the power control command may be different than that used for transmitting in the uplink. Such a scheme may be used when SRS may be used by multiple reception points in the network (e.g., multiple serving sites)” Marinier at [0095]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108].

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		“The network may indicate the density and/or pattern of subframes assigned to the WTRU when transmitting an UL grant on DCI Format 0/4 to the WTRU (e.g., and/or when transmitting another type of DCI). If the WTRU has already been allocated a subset of subframes for use at another serving site, the WTRU may indicate its current subframe subset pattern for the other site(s) to a serving site from which the WTRU is requesting a new subframe subset. Rather than or in addition to sending an indication of its current subframe subset pattern associated with other serving site(s) when requesting a subframe subset from a different serving site, the WTRU may indicate to the different serving site that it is currently configured for UL transmission with another site during the subframe subset request (e.g., by identifying the other serving sites by serving site ID and/or cell ID). Such an indication may trigger the different serving sites to exchange information related to the current subframe subsets and/or negotiate a new subframe subset for one or more of the serving sites (e.g., over X2, X2bis, or any other interface between the two serving sites).” Marinier at [0109]. “The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission. In an example, the OCC to be used for PUCCH for transmitting HARQ feedback may be assigned based on the DCI used for downlink assignment.” Marinier at [0105]. “For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. For example, the flag and/or other indication may indicate that the grant will have a specific priority, for example a priority that is different that a default priority for a typical grant of the given type. The WTRU may use the indication of priority when performing logical channel prioritization such that data with a corresponding priority may be included in the MAC PDU that may be transmitted in the transport block that corresponds to the received grant. In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any

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		WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication. The WTRU may implicitly determine that such priority may be applied to the preamble transmission as a function of the indicated PRACH parameter (e.g., preamble index, PRACH mask index, etc.) and or associated PRACH resource (e.g., in case partitioning or PRACH is configured). [0173] In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0172]-[0173]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.”

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		Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on a second set of DCI that is received for the subframe. For example, first DCI may be received and may define a set of transmission parameters to be applied for transmitting to the first serving site, and second DCI may be received and may define a set of transmission parameters to be applied for transmitting to the second serving site. The DCI for the first serving site may be received via a PDCCH and/or E-PDCCH transmission from the first serving site, and the DCI for the second serving site may be received via a PDCCH and/or E-PDCCH transmission from the second serving site. In another example, the DCI for both serving sites may be received from one of the serving sites. In a subframe during which the WTRU successfully decodes a plurality of DCI messages indicating an uplink grant for the same PUSCH, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power. In an example, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power while minimizing (and/or avoiding) the application of power reduction and/or power scaling for the allocated PUSCH transmissions.” Marinier at [0189]. “In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances.” Marinier at [0190]. “The WTRU may thus be configured to use a different subframe offset for HARQ-ACK for different subframe subset configurations. For example, the WTRU may be preconfigured with

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		multiple different value of k that may be used for determining the subframe(n+k) that is used for transmitting HARQ-ACK to a serving site that transmitted a DL transmission in subframe(n). Which value of k should be used for a given DL transmission may be dynamically indicated in the DCI that includes the downlink assignment for subframe(n). In an example, the WTRU may be configured to transmit the HARQ-ACK in any valid UL subframe (e.g., the first valid UL subframe) on or after subframe(n+k).” Marinier at [0204]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.

2. Claim 4

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4[pre]	A method of receiving uplink (UL) control information by a base station, the method comprising:	To the extent the preamble is limiting, at least under Pegasus’s apparent infringement theory, Marinier discloses “A method of receiving uplink (UL) control information by a base station, the method comprising.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that

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		are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “For example, time segregation may be utilized for preventing conflicts between the uplink transmissions of the plurality of MAC instances. When time segregation is utilized each of the first MAC instance and the second MAC instance may be assigned a respective subset of subframes for transmitting in the uplink. For example, a first subset of subframes may be assigned to the first MAC instance and a second set of subframes may be assigned to the second MAC instance. The subframe subsets may be completely separated or may partially overlap. The first MAC instance and the second MAC instance may utilize non-synchronous subframe timing. The WTRU may determine to drop at least one symbol to be transmitted to the first serving site based on an allocated subframe of the second serving site overlapping with an allocated subframe of the first serving site. The symbol may be dropped in order to allow the WTRU to switch its physical layer configuration in order to transmit to a different serving site. The at least one symbol that is dropped may be the last symbol in the allocated subframe of the first serving site. In an example, the WRU may drop the first symbol of the allocated subframe of the second serving site.” Marinier at [0005]. “Due to limited number of subframes available for uplink transmission, one or more uplink procedures may be modified in order to ensure uplink resources are available for transmission to a given MAC instance. For example, a first hybrid automatic repeat request (HARQ) feedback timing relationship may be applied for transmissions sent using the first MAC instance, and a

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		second HARQ timing relationship may be applied for transmission sent using the second MAC instance.” Marinier at [0006]. “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands. However, if the WTRU transmits in accordance with each of the signaled grants, the combination may result in the WTRU exceeding its maximum transmission power. In this situation, the WTRU may be unable to transmit each signal at the power level requested the receptive schedulers, increasingly the likelihood of a failed transmission.” Marinier at [0064]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site. The UCI transmission to the first site (e.g., sent via the PUCCH, PUSCH, etc.) may conflict with the PUSCH transmission to the second site. Such a situation may cause numerous complications. For example, the WTRU may attempt to include the UCI (e.g., which was request by and/or pertains to transmissions associated with the first serving site) in the PUSCH transmission sent to the second serving site; however, the second serving site may be unaware that the WTRU is including

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the UCI in the PUSCH transmission, so the second serving site may fail to properly decode one or more of the UCI and/or the entire PUSCH transmission.”
Marinier at [0065].

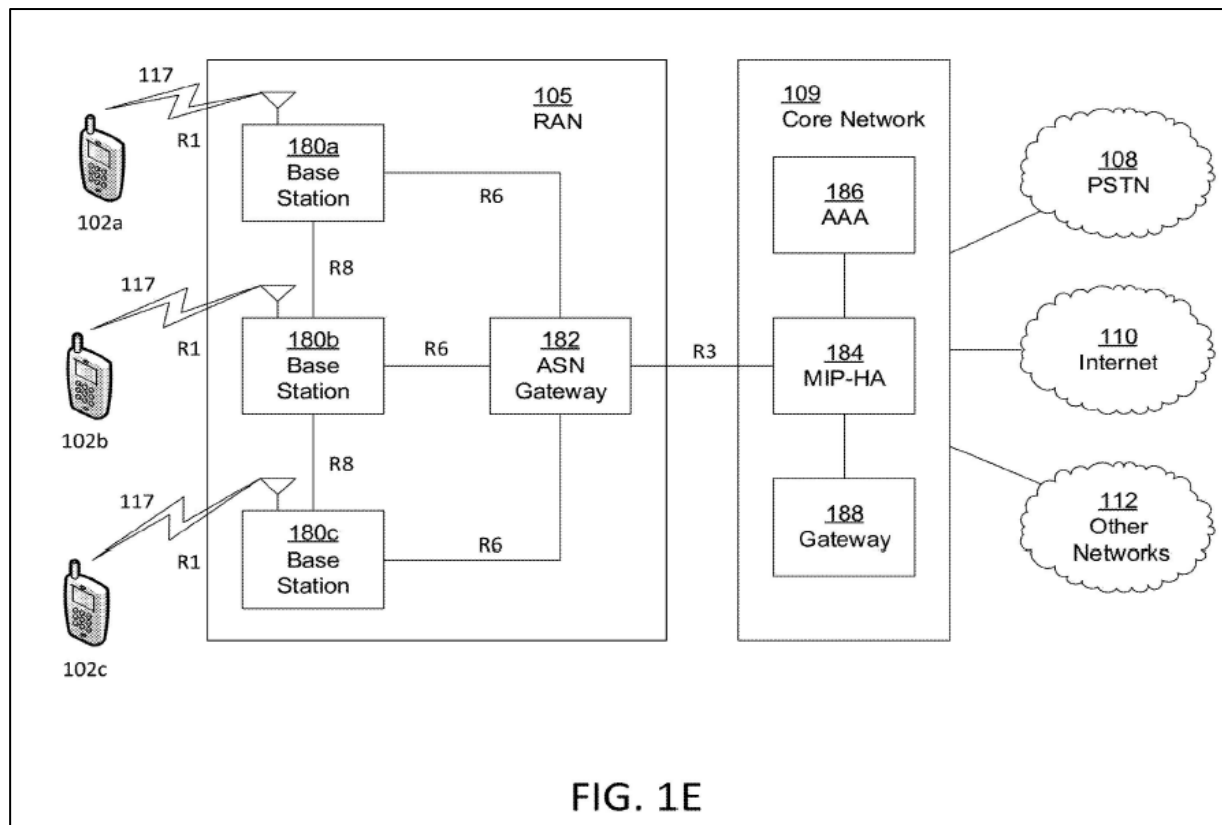


FIG. 1E

Marinier at Fig. 1E.

To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill

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		in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
4[a]	transmitting UL control channel resource set configuration information for transmitting UL control information to a user equipment; and	At least under Pegasus’s apparent infringement theory, Marinier discloses “transmitting UL control channel resource set configuration information for transmitting UL control information to a user equipment.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance.” Marinier at Abstract. “As shown in FIG. 1A, the communications system 100 may include wireless transmit/receive units (WTRUs) 102 a, 102 b, 102 c, and/or 102 d (which generally or collectively may be referred to as WTRU 102), a radio access network (RAN) 103/104/105, a core network 106/107/109, a public switched telephone network (PSTN) 108, the Internet 110, and other networks 112, though it will be appreciated that the disclosed embodiments contemplate any number of WTRUs, base stations, networks, and/or network elements. Each of the WTRUs 102 a, 102 b, 102 c, 102 d may be any type of device configured to operate and/or communicate in a wireless environment. By way of example, the WTRUs 102 a, 102 b, 102 c, 102 d may be configured to transmit and/or receive wireless signals and may include user equipment (UE), a mobile station, a fixed or mobile subscriber unit, a pager, a cellular telephone, a personal digital assistant (PDA), a smartphone, a laptop, a netbook, a personal computer, a wireless sensor, consumer electronics, and the like.

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		The communications systems 100 may also include a base station 114 a and a base station 114 b. Each of the base stations 114 a, 114 b may be any type of device configured to wirelessly interface with at least one of the WTRUs 102 a, 102 b, 102 c, 102 d to facilitate access to one or more communication networks, such as the core network 106/107/109, the Internet 110, and/or the networks 112.” Marinier at [0020]-[0021]. “For example, the WTRU 102 c shown in FIG. 1A may be configured to communicate with the base station 114 a, which may employ a cellular-based radio technology, and with the base station 114 b, which may employ an IEEE 802 radio technology.” Marinier at [0031]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and

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		the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “In an example, rather than physical channels being associated with a single serving site, a set of one or more physical channel may be associated with more than one serving site. For example, a given uplink transmission by the WTRU sent over an uplink physical channel may be received by multiple serving sites (e.g., eNBs), for example using a MAC instance that is common to multiple serving sites. Thus, an uplink physical channel (e.g., and/or reference signal) may be used for transmission of data and/or control information associated with more than one serving site, and a downlink physical channel (e.g., and/or reference signal) may be used for reception of data and/or control information associated with more than one serving site. The set of physical channels and/or reference signals used for communication with multiple serving sites may be mapped to a single MAC instance that is associated with each of the serving sites.” Marinier at [0084]. “Multiple sets of subframe subsets may be orthogonal to each other (e.g., non-overlapping in the time domain) and/or may be configured to overlap. For example, if two or more subframe subsets associated with different serving sites overlap, multiple UL transmissions to different serving sites may occur in the same subframe(s). For example, a WTRU may be configured to transmit a PUCCH transmission to a first serving site and a PUSCH transmission to a second serving site in the same subframe. As an example, the WTRU may receive an UL grant for transmission to a first serving site in subframe(n), and the WTRU may also be configured to transmit HARQ feedback via the PUCCH to a second serving site in the same subframe(n). As another example, the WTRU may be configured to transmit HARQ feedback to multiple serving sites in the same subframe.” Marinier at [0106].

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		“The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset. A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration.” Marinier at [0111]-[0112]. “In an example, rather than or in addition to WTRU-autonomous priority rules, the WTRU may receive one or more explicit indications from the network (e.g., one or more serving sites) for selecting between MAC instances in case of contention. The network based priority indications may be applicable to one or more of non-simultaneous and/or simultaneous use of physical resources. The explicit indication of priority may be received via one or more of L1 signaling

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		(e.g., PHY signaling such as the PDCCH and/or E-PDCCH), L2 signaling (e.g., MAC), and/or L3 signaling (e.g., RRC). For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. . . . In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication.” Marinier at [0172]-[0173]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.).” Marinier at [0182].

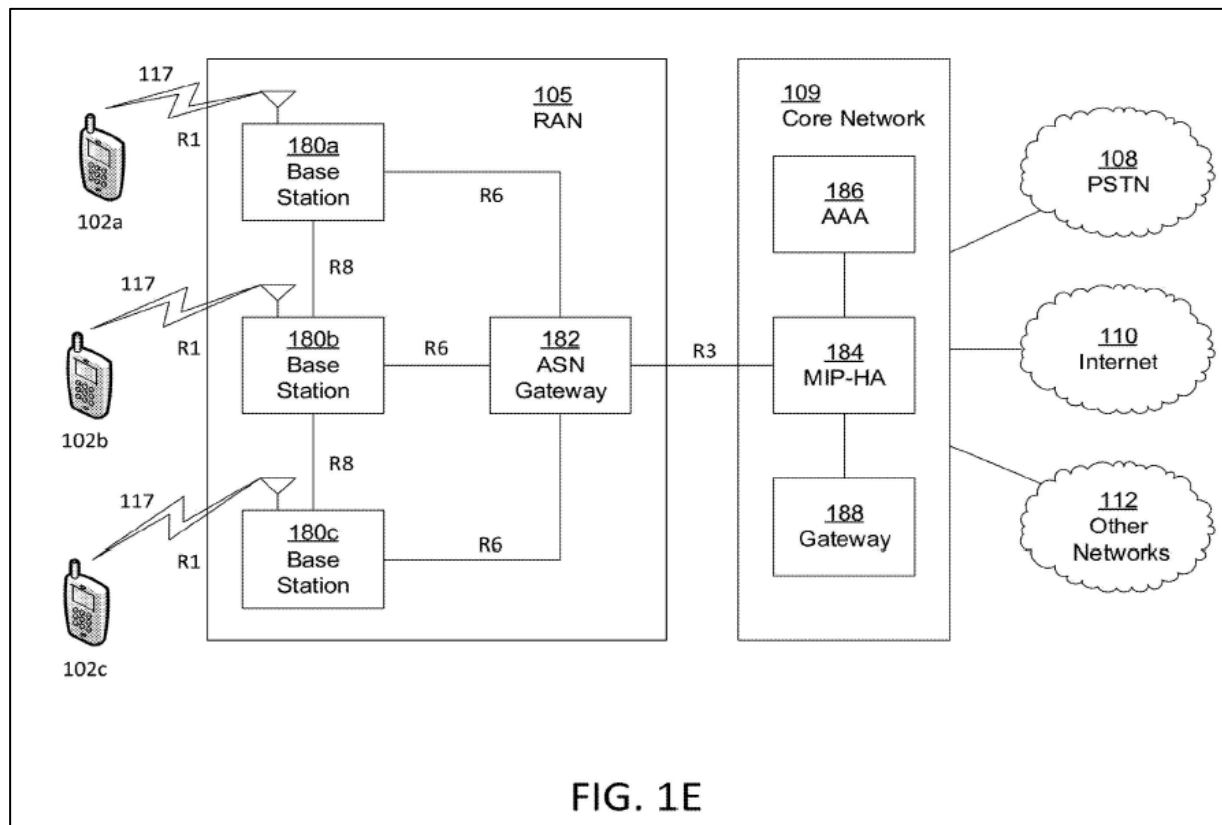
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		“In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on the identity of one or more transmission parameters applied for transmission to another serving site. For example, the WTRU may be preconfigured and/or receive RRC signaling that configures one or more parameters that the WTRU should apply for transmissions to a second serving site based on the parameters/configurations applied to a first serving site. As an example, the second set of parameters to be used for a transmission to a second serving site may be determined and/or derived from a first set of parameters that are indicated in DCI for a first serving site. The WTRU may have a predefined configuration and/or may receive a configuration via higher layer signaling that indicates which parameters are used for transmission to a second serving site when certain other parameters are being used for a concurrent transmission to a first serving site in the same subframe.” Marinier at [0187]. “The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate

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		the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance.” Marinier at [0190]. “In an example, the WTRU may receive downlink control signaling (e.g., such as DCI on the E-PDCCH and/or the PDCCH) that instructs the WTRU to assign the corresponding grant to a specific subset of LCHs. For example, the received DCI may include an indication such that the received grant may be used for transmission of data from one or more of a specific LCH(s) (e.g., based on bearer identity), a specific bearer type (e.g., SRB), a specific priority (e.g., such as a WTRU-specific LCH priority), and/or the like.” Marinier at [0262].

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Marinier at Fig. 1E.

To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the

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		same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
4[b]	receiving the UL control information through one of UL control channel resources configuring one of UL control channel resource sets contained in UL control channel resource set configuration information,	At least under Pegasus’s apparent infringement theory, Marinier discloses “receiving the UL control information through one of UL control channel resources configuring one of UL control channel resource sets contained in UL control channel resource set configuration information.” For example, Marinier discloses this limitation based on the following exemplary citations: “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCell). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). . . . A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders,

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		transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, rather than physical channels being associated with a single serving site, a set of one or more physical channel may be associated with more than one serving site. For example, a given uplink transmission by the WTRU sent over an uplink physical channel may be received by multiple serving sites (e.g., eNBs), for example using a MAC instance that is common to multiple serving sites. Thus, an uplink physical channel (e.g., and/or reference signal) may be used for transmission of data and/or control information associated with more than one serving site, and a downlink physical channel (e.g., and/or reference signal) may be used for reception of data and/or control information associated with more than one serving site. The set of physical channels and/or reference signals used for communication with multiple serving sites may be mapped to a single MAC instance that is associated with each of the serving sites.” Marinier at [0084]. “Multiple sets of subframe subsets may be orthogonal to each other (e.g., non-overlapping in the time domain) and/or may be configured to overlap. For example, if two or more subframe subsets associated with different serving sites overlap, multiple UL transmissions to different serving sites may occur in the same subframe(s). For example, a WTRU may be configured to transmit a PUCCH transmission to a first serving site and a PUSCH transmission to a second serving site in the same subframe. As an example, the WTRU may receive an UL grant for transmission to a first serving site in subframe(n), and the WTRU may also be configured to transmit HARQ feedback via the PUCCH to a second serving site in the same subframe(n). As another example, the WTRU may be configured to transmit HARQ feedback to multiple serving sites in the same subframe.” Marinier at [0106].

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		“The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset. A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration.” Marinier at [0111]-[0112]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or

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		more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.).” Marinier at [0182]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission.” Marinier at [0186]. “The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of

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		transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance.” Marinier at [0190]. “In an example, the WTRU may receive downlink control signaling (e.g., such as DCI on the E-PDCCH and/or the PDCCH) that instructs the WTRU to assign the corresponding grant to a specific subset of LCHs. For example, the received DCI may include an indication such that the received grant may be used for transmission of data from one or more of a specific LCH(s) (e.g., based on bearer identity), a specific bearer type (e.g., SRB), a specific priority (e.g., such as a WTRU-specific LCH priority), and/or the like.” Marinier at [0262]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
4[c]	wherein the UL control channel resource sets are configured for each UL bandwidth part (BWP) configured for the user equipment, and	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the UL control channel resource sets are configured for each UL bandwidth part (BWP) configured for the user equipment.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site

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		associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “In an example, frequency segregation may be utilized. For example, the WTRU may transmit using a first carrier when sending transmission associated with the first MAC instance, and the WTRU may transmit using a second carrier when sending transmission associated with the second MAC instance. The carriers may be separated in the frequency domain.” Marinier at [0007]. “As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands.” Marinier at [0064]. “For example, the WTRU may be configured to operate with one or more serving sites (e.g., also referred to as serving eNBs) in the downlink and/or the uplink. Each serving site may be associated with one or more serving cells. For example, a WTRU may operate using a single serving cell (e.g., component carrier) at first serving site (e.g., a MeNB) and may operate using a plurality of serving cells (e.g., a plurality of component carriers) at a second serving site (e.g., a SCeNB). Thus, a serving site may be associated with a plurality of serving cells. Each serving cell of a given serving site may be configured for operation at a corresponding component carrier (CC). A serving site may support one or multiple CCs. Each CC within a serving site may operate using a different frequency range than other CCs of the serving site, so that each of the serving cells associated with a given serving site may be transmitted using a different CC. However,

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		serving cells from different serving sites may be transmitted using the same CC. Therefore, serving cells may be associated with the same CC but with different serving sites.” Marinier at [0072]. “As an example, frequency segregation may be performed in order to transmit to multiple serving sites in the same subframe. Frequency segregation may be used in addition to time segregation and/or without time segregation. For example, if a partially overlapping time segregation scheme is utilized, frequency segregation may also be utilized, for example for subframes for which there is partial overlap and/or for all subframes. For example, a WTRU may be configured with one of more frequency subband subsets for one or more serving sites. For example, if a first cell of a first serving site operates in the same frequency band and/or component carrier of a second cell of a second serving site, the MAC instances associated with the different serving sites may be configured to use different subband subsets within the frequency band/component carrier. In an example, the bandwidth (BW) utilized by the different serving sites may be divided into a plurality of BW parts. Each serving site may be configured to utilize one or more of the BW parts for communicating with the WTRU. For example, each BW part may be treated as a component carrier in carrier aggregation. For example, each BW part may include corresponding PUCCH and PUSCH resources. Some bandwidth parts may include PUCCH without a PUSCH (e.g., for CSI reporting to a serving site) and/or PUSCH without PUCCH.” Marinier at [0131]. “A WTRU may be configured to transmit signals that span multiple BW parts. For example, a single SRS sequence may be transmitted over a full BW of a cell and/or serving site, which may span a plurality of BW parts. In an example, a WTRU may transmit different SRSs (e.g., each with its own set of parameters) for each BW part. The transmission power utilized by the WTRU may be specific to which BW part is used for transmission. For example, a WTRU may be configured with an independent maximum transmit powers (e.g., PCMAX) per BW part. For example, the WTRU may be perform UL transmission power control independently for each BW part. In another example, the WTRU may be configured with a single maximum transmit power value (e.g., PCMAX) for the entire BW. For example, if the maximum transmit power is determined across the whole BW, the WTRU may

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		first determine the power to be utilized for PUCCH transmission in a given subframe, and may then allocate remaining power below the maximum transmit power for use transmitting the PUSCH. The PUCCH and PUSCH may be configured for transmission using power control parameters that are specific to the serving site associated with the channel transmission.” Marinier at [0133]-[0134]. “The WTRU may determine the configuration of the different BW parts and/or the network (e.g., one or more serving sites) may determine the configuration of BW parts. For example, the BW parts may be configured in a manner similar to subframe subsets are configured for time segregation. For example, any of the methods described herein for configured a subframe subset may be used for configuring a BW part for a given serving site and/or set of serving sites.” Marinier at [0139]. “In an example, an RRC message similar to a handover command may be received from a first serving site to which the WTRU is already connected, and the message may trigger the WTRU to perform an initial access procedure to a second serving site. For example, the RRC message may include dedicated PRACH resources and/or a dedicated preamble to be used for the RACH on the PRACH resources of the second serving site. The subbands (and/or BW part) within which a WTRU may attempt RACH may implicitly indicate whether or not the WTRU has an established radio link to another serving site (e.g., if RACH is performed in a first BW part the WTRU may have an established connection to a different serving site, if the WTRU attempts RACH in a second BW part the WTRU may lack a connection to another serving site). The PRACH resource used for the transmission of a preamble may indicate whether or not it has a radio link to another site. For example, certain dedicated RACH preambles and/or certain PRACH resources may be reserved for access attempts performed by WTRUs with an established connection to a different serving site. The WTRU may indicate whether the RACH is for the establishment of a secondary RRC connection or a primary RRC connection.” Marinier at [0152]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier

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		renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
4[d]	wherein the each UL BWP is activated through downlink (DL) control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the each UL BWP is activated through downlink (DL) control information.” For example, Marinier discloses this limitation based on the following exemplary citations: “As an example, frequency segregation may be performed in order to transmit to multiple serving sites in the same subframe. Frequency segregation may be used in addition to time segregation and/or without time segregation. For example, if a partially overlapping time segregation scheme is utilized, frequency segregation may also be utilized, for example for subframes for which there is partial overlap and/or for all subframes. For example, a WTRU may be configured with one of more frequency subband subsets for one or more serving sites. For example, if its first cell of a first serving site operates in the same frequency band and/or component carrier of a second cell of a second serving site, the MAC instances associated with the different serving sites may be configured to use different subband subsets within the frequency band/component carrier. In an example, the bandwidth (BW) utilized by the different serving sites may be divided into a plurality of BW parts. Each serving site may be configured to utilize one or more of the BW parts for communicating with the WTRU. For example, each BW part may be treated as a component carrier in carrier aggregation. For example, each BW part may include corresponding PUCCH and PUSCH resources. Some bandwidth parts may include PUCCH without a PUSCH (e.g., for CSI reporting to a serving site) and/or PUSCH without PUCCH.” Marinier at [0131]. “A WTRU may be configured to transmit signals that span multiple BW parts. For example, a single SRS sequence may be transmitted over a full BW of a cell and/or serving site, which may

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		span a plurality of BW parts. In an example, a WTRU may transmit different SRSs (e.g., each with its own set of parameters) for each BW part. The transmission power utilized by the WTRU may be specific to which BW part is used for transmission. For example, a WTRU may be configured with an independent maximum transmit powers (e.g., PCMAX) per BW part. For example, the WTRU may be perform UL transmission power control independently for each BW part. In another example, the WTRU may be configured with a single maximum transmit power value (e.g., PCMAX) for the entire BW. For example, if the maximum transmit power is determined across the whole BW, the WTRU may first determine the power to be utilized for PUCCH transmission in a given subframe, and may then allocate remaining power below the maximum transmit power for use transmitting the PUSCH. The PUCCH and PUSCH may be configured for transmission using power control parameters that are specific to the serving site associated with the channel transmission.” Marinier at [0133]-[0134]. “The WTRU may determine the configuration of the different BW parts and/or the network (e.g., one or more serving sites) may determine the configuration of BW parts. For example, the BW parts may be configured in a manner similar to subframe subsets are configured for time segregation. For example, any of the methods described herein for configured a subframe subset may be used for configuring a BW part for a given serving site and/or set of serving sites.” Marinier at [0139]. “In order for a WTRU to receive multiple DL transmissions on the same carrier (or on different carriers), the WTRU may be configured with time segregation or frequency segregation for DL transmissions in a manner similar to that as described for UL transmission. For example, a serving site/cell may indicate to the WTRU the amount of traffic it has buffered for that WTRU. The WTRU may obtain such the buffer metrics for each serving site. The WTRU may use the metric to determine ratio of resources (e.g., time resources, frequency resources, etc.) to be allocated for each serving site. The WTRU may request the appropriate amount of resources from each sites. If there was a previous allocation of resources that is still active, the WTRU may request modification of resources (e.g., fewer subframes assigned to a first serving site and/or a larger

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		number of subframes assigned to a second serving site; fewer BW parts assigned to a first serving site and/or a larger BW parts of subframes assigned to a second serving site; etc.).” Marinier at [0146]. “In an example, an RRC message similar to a handover command may be received from a first serving site to which the WTRU is already connected, and the message may trigger the WTRU to perform an initial access procedure to a second serving site. For example, the RRC message may include dedicated PRACH resources and/or a dedicated preamble to be used for the RACH on the PRACH resources of the second serving site. The subbands (and/or BW part) within which a WTRU may attempt RACH may implicitly indicate whether or not the WTRU has an established radio link to another serving site (e.g., if RACH is performed in a first BW part the WTRU may have an established connection to a different serving site, if the WTRU attempts RACH in a second BW part the WTRU may lack a connection to another serving site). The PRACH resource used for the transmission of a preamble may indicate whether or not it has a radio link to another site. For example, certain dedicated RACH preambles and/or certain PRACH resources may be reserved for access attempts performed by WTRUs with an established connection to a different serving site. The WTRU may indicate whether the RACH is for the establishment of a secondary RRC connection or a primary RRC connection.” Marinier at [0152]. “In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0173]. <i>See also id.</i> at [0174]-[0175].

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		“One or more sets of transmission parameters to be applied during periods of concurrent transmission to different serving sites in the same subframe may be applicable for a predetermined period of time and/or bounded in time. The WTRU may determine when to start and/or stop deriving a second set of transmission parameters for a given MAC instance or for a specific PUSCH according various criteria. For example, the WTRU may determine whether or not to utilize separate transmission parameters for transmissions to different serving sites and/or for how long the separate parameters should be used based on explicit signaling. The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance. In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 2 (e.g., MAC CE) signaling, for example as part of an indication for the concerned MAC instance or for one or more of the serving cells of the MAC instance. In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances. The WTRU may determine when to begin and/or stop determining and/or utilizing a second, separate set of transmission parameters for a given MAC instance and/or for a specific PUSCH based on the activation of MAC instance and/or the deactivation of a MAC instance. For example, the WTRU may be triggered to begin determining a separate set of transmission parameters for a given MAC instance based on the activation of the given MAC instance and/or the activation of a different MAC instance. The WTRU may be triggered to stop determining a separate set of transmission parameters for a given MAC instance based on the deactivation of the given MAC instance and/or the deactivation of a different MAC instance.”

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		Marinier at [0190]-[0191]. “The WTRU may include PH information for each configured and/or activated MAC instance in a PHR transmitted to a specific serving site. In an example, the PH information may be reported for transmissions related to a PCell of each MAC instance, but not to SCells associated with the MAC instances. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on various criteria. For example, the WTRU may be triggered to send a PHR to one or more serving sites based on one or more of MAC instance/layer activation, MAC instance/layer deactivation, applying power scaling to a transmission in a given layer, a QoS requirement not being met in a given layer, and/or the like. For example, the WTRU may be triggered to send a PHR to one or more serving sites based on a MAC instance/layer being activated and/or deactivated. For example, the WTRU may trigger a PHR to be sent based on WTRU receiving control signaling that configures a MAC instance of the WTRU configuration. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU removing a MAC instance that the WTRU was previously using and/or configured to use (e.g., following reception of control signaling deactivating the layer; the WTRU determining RLF for the concerned layer; other impairment events for the concerned layer; etc.). As an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that activates a MAC instance of the WTRU configuration. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU deactivating a MAC instance of the WTRU configuration. The deactivation may be based on reception of control signaling indicating the layer should be deactivate and/or following the expiration of a timer indicting deactivation (e.g., WTRU-autonomous deactivation). In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that schedules the first transmission for a concerned MAC instance after the concerned MAC instance was last configured and/or activated (e.g., the first PUSCH transmission). In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that schedules the first transmission for a MAC instance/layer since the WTRU last

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		deactivated, removed, and/or otherwise invalidated one or more other MAC instances (e.g., the first scheduled PUSCH transmission).” Marinier at [0220]-[0222] “In an example, the WTRU may be triggered to generate and/or send a QSR based on reception of control signaling that deactivates a MAC instance (e.g., upon deactivation of a secondary MAC instance). For example, the QSR may be generated based on a MAC instance being deactivated while there is still some data in the WTRU buffer(s) for the deactivated MAC instance. In an example, the QSR may be triggered if the WTRU has data buffered for a LCH/LCG associated with the deactivated MAC instance that is not mapped to any other layers. Such a QSR may be a trigger for radio bearer mobility for radio bearers of the deactivated MAC instance. In an example, the WTRU may be triggered to generate and/or send a QSR for multi-flow bearers (e.g., bearers mapped to multiple MAC instances/layers) that were utilized by a deactivate MAC instance. Such a QSR may be used to make scheduling adjustments due to the change of available resources for a given WTRU.” Marinier at [0235]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
5	The method according to claim 4, wherein the one of the UL control channel resource sets for the UL control	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the one of the UL control channel resource sets for the UL control information transmission is determined based on a size of the UL control information.” For example, Marinier discloses this limitation based on the following exemplary citations:

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	information transmission is determined based on a size of the UL control information.	“For example, the WTRU may determine one or more transmission parameters to be applied for a given uplink grant in a first layer (e.g., associated with a first serving site and/or a first MAC instance) based on the parameters applied to an uplink transmission in a second layer (e.g., associated with a second serving site and/or a second MAC instance). For example, for a subframe during which concurrent/simultaneous UL transmission is to be performed for more than one MAC instance/layer, the WTRU may be configured to select one or more transmission parameters to use for a PUSCH transmission in a first layer associated with a first serving site (e.g., and/or MAC instance) based on the existence of a transmission in a second layer associated with a first serving site (e.g., the parameters used in the first layer may change depending on whether or not a transmission in a second layer is to occur concurrently) and/or based on one more characteristics of UL transmission on the second layer. For example, one or more of a modulation and coding scheme (MCS), a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission in a first layer associated with a first serving site may be selected based on whether or not transmission is to be sent to a second serving site concurrently. In an example, one or more of an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission in a first layer associated with a first serving site may be selected based the identity of one or more uplink transmission parameters to be used for concurrent transmission to a second serving site (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission to the second serving site).” Marinier at [0183]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting

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		to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may be configured with a first configuration (e.g., a layer-specific configuration) for performing logical channel prioritization. The first configuration (e.g., a layer-specific configuration) may include one or more of a PBR configuration (e.g., prioritizedBitRate, bucketSizeDuration, etc.), a priority for a one or more radio bearer and/or logical channel (LCH), and/or the like. For example, the first configuration may be received for a LCH that is configured for multi-flow operation.” Marinier at [0258]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
6[a]	The method according to claim 4, further comprising transmitting, to the user equipment, DL control information containing information that	At least under Pegasus’s apparent infringement theory, Marinier discloses “transmitting, to the user equipment, DL control information containing information that indicates the one of the UL control channel resources for the UL control information transmission.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.)

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	indicates the one of the UL control channel resources for the UL control information transmission,	from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “n an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077].

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		“A PDCCH and/or enhanced PDCCH (E-PDCCH) may be associated with each serving cell of a given MAC instance. For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). If carrier aggregation is used and the carrier indication field (CIF) is configured for a given MAC instance, then the WTRU may attempt to receive the PDCCH and/or E-PDCCH in PCell of the MAC instance, but not on the zero or more SCells associated with the MAC instance. More than one E-PDCCH set may be configured for a given serving cell associated with a MAC instance. A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, the identity of the MAC instance that a received power control adjustment is applicable to may be determined based on the identity of the MAC instance used for to receive the DCI that included the corresponding TPC command field.” Marinier at [0092]. “For example, a field in the DCI used to send the power control command (e.g., via a PDCCH of one or more MAC instances) may be used to indicate to the WTRU whether the power control command is a global power control command or a power control command that is specific to a given MAC instance (e.g., the MAC instance over which the power control command was received). The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be

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		used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0093]-[0094]. “For example, DCI included in a PDCCH transmission associated with a first MAC instance may be received in subframe(n). The DCI may indicate a power control adjustment for SRS. In subframe(n+k), SRS may be scheduled for one or more MAC instances, for example a second MAC instance. The WTRU may determine to apply the power control command received in subframe(n) of the first MAC instance to the transmission of SRS in subframe(n+k) via the second MAC instance. Thus, the power control adjustment received in subframe(n) may be valid even though the MAC instance used for transmission of the DCI that included the power control command may be different than that used for transmitting in the uplink. Such a scheme may be used when SRS may be used by multiple reception points in the network (e.g., multiple serving sites)” Marinier at [0095].

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		“The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “The network may indicate the density and/or pattern of subframes assigned to the WTRU when transmitting an UL grant on DCI Format 0/4 to the WTRU (e.g., and/or when transmitting another type of DCI). If the WTRU has already been allocated a subset of subframes for use at another serving site, the WTRU may indicate its current subframe subset pattern for the other site(s) to a serving site from which the WTRU is requesting a new subframe subset. Rather than or in addition to sending an indication of its current subframe subset pattern associated with other serving site(s) when requesting a subframe subset from a different serving site, the WTRU may indicate to the different serving site that it is currently configured for UL transmission with another site during the subframe subset request (e.g., by identifying the other serving sites by serving site ID and/or cell ID). Such an indication may trigger the different serving sites to exchange information related to the current subframe subsets and/or negotiate a new subframe subset for one or more of the serving sites (e.g., over X2, X2bis, or any other interface between the two serving sites).” Marinier at [0109]. “The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission. In an example, the OCC to be used for PUCCH for transmitting HARQ feedback may be assigned based on the DCI used for downlink assignment.” Marinier at [0105].

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		“For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. For example, the flag and/or other indication may indicate that the grant will have a specific priority, for example a priority that is different that a default priority for a typical grant of the given type. The WTRU may use the indication of priority when performing logical channel prioritization such that data with a corresponding priority may be included in the MAC PDU that may be transmitted in the transport block that corresponds to the received grant. In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication. The WTRU may implicitly determine that such priority may be applied to the preamble transmission as a function of the indicated PRACH parameter (e.g., preamble index, PRACH mask index, etc.) and or associated PRACH resource (e.g., in case partitioning or PRACH is configured). [0173] In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0172]-[0173]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As

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		an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on a second set of DCI that is received for the subframe. For example, first DCI may be received and may define a set of transmission parameters to be applied for transmitting to the first serving site, and second DCI may be received and may define a set of transmission parameters to be applied for transmitting to the second serving site. The DCI for the first serving site may be received via a PDCCH and/or E-PDCCH transmission from the first serving site, and the DCI for the second serving site may be received via a PDCCH and/or E-PDCCH transmission from the second serving site. In another example, the DCI for both serving sites may be received from one of the serving sites. In a subframe during which the WTRU successfully decodes a plurality of DCI messages indicating an uplink grant for the same PUSCH, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power. In an example, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power while minimizing (and/or avoiding) the application of power reduction and/or power scaling for the allocated PUSCH transmissions.” Marinier at [0189].

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		“In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances.” Marinier at [0190]. “The WTRU may thus be configured to use a different subframe offset for HARQ-ACK for different subframe subset configurations. For example, the WTRU may be preconfigured with multiple different value of k that may be used for determining the subframe(n+k) that is used for transmitting HARQ-ACK to a serving site that transmitted a DL transmission in subframe(n). Which value of k should be used for a given DL transmission may be dynamically indicated in the DCI that includes the downlink assignment for subframe(n). In an example, the WTRU may be configured to transmit the HARQ-ACK in any valid UL subframe (e.g., the first valid UL subframe) on or after subframe(n+k).” Marinier at [0204]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
6[b]	wherein the one of the UL control channel resources is indicated	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the one of the UL control channel resources is indicated to the user equipment through the DL control

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	to the user equipment through the DL control information.	information.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “n an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of

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		physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “A PDCCH and/or enhanced PDCCH (E-PDCCH) may be associated with each serving cell of a given MAC instance. For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). If carrier aggregation is used and the carrier indication field (CIF) is configured for a given MAC instance, then the WTRU may attempt to receive the PDCCH and/or E-PDCCH in PCell of the MAC instance, but not on the zero or more SCells associated with the MAC instance. More than one E-PDCCH set may be configured for a given serving cell associated with a MAC instance. A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, the identity of the MAC instance that a received power control adjustment is applicable to may be determined based on the identity of the MAC instance used for to receive the DCI that included the corresponding TPC command field.” Marinier at [0092]. “For example, a field in the DCI used to send the power control command (e.g., via a PDCCH of one or more MAC instances) may be used to indicate to the WTRU whether the power control command is a global power control command or a power control command that is specific to a given MAC instance (e.g., the MAC instance over which the power control command was received).

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		The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0093]-[0094]. “For example, DCI included in a PDCCH transmission associated with a first MAC instance may be received in subframe(n). The DCI may indicate a power control adjustment for SRS. In subframe(n+k), SRS may be scheduled for one or more MAC instances, for example a second MAC instance. The WTRU may determine to apply the power control command received in subframe(n) of the first MAC instance to the transmission of SRS in subframe(n+k) via the second MAC instance. Thus, the power control adjustment received in subframe(n) may be valid even though the MAC instance used for transmission of the DCI that included the power control command may be different than that used for transmitting in the uplink. Such a scheme may be

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		used when SRS may be used by multiple reception points in the network (e.g., multiple serving sites)” Marinier at [0095]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “The network may indicate the density and/or pattern of subframes assigned to the WTRU when transmitting an UL grant on DCI Format 0/4 to the WTRU (e.g., and/or when transmitting another type of DCI). If the WTRU has already been allocated a subset of subframes for use at another serving site, the WTRU may indicate its current subframe subset pattern for the other site(s) to a serving site from which the WTRU is requesting a new subframe subset. Rather than or in addition to sending an indication of its current subframe subset pattern associated with other serving site(s) when requesting a subframe subset from a different serving site, the WTRU may indicate to the different serving site that it is currently configured for UL transmission with another site during the subframe subset request (e.g., by identifying the other serving sites by serving site ID and/or cell ID). Such an indication may trigger the different serving sites to exchange information related to the current subframe subsets and/or negotiate a new subframe subset for one or more of the serving sites (e.g., over X2, X2bis, or any other interface between the two serving sites).” Marinier at [0109].

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		“The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission. In an example, the OCC to be used for PUCCH for transmitting HARQ feedback may be assigned based on the DCI used for downlink assignment.” Marinier at [0105]. “For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. For example, the flag and/or other indication may indicate that the grant will have a specific priority, for example a priority that is different that a default priority for a typical grant of the given type. The WTRU may use the indication of priority when performing logical channel prioritization such that data with a corresponding priority may be included in the MAC PDU that may be transmitted in the transport block that corresponds to the received grant. In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication. The WTRU may implicitly determine that such priority may be applied to the preamble transmission as a function of the indicated PRACH parameter (e.g., preamble index, PRACH mask index, etc.) and or associated PRACH resource (e.g., in case partitioning or PRACH is configured). [0173] In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger

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		the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0172]-[0173]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on a second set of DCI that is received for the subframe. For example, first DCI may be received and may define a set of transmission parameters to be applied for transmitting to the first serving site, and second DCI may be received and may define a set of transmission parameters to be applied for transmitting to the second serving site. The DCI for the first serving site may be received via a PDCCH and/or E-PDCCH transmission from the first serving site, and the DCI for the second serving site may be received via a PDCCH and/or E-PDCCH transmission from the second serving site. In another example, the DCI for both serving sites may be received from one of the serving sites. In a subframe during which the WTRU successfully decodes a plurality of DCI messages indicating an uplink grant for the same PUSCH, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's

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		transmission power. In an example, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power while minimizing (and/or avoiding) the application of power reduction and/or power scaling for the allocated PUSCH transmissions.” Marinier at [0189]. “In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances.” Marinier at [0190]. “The WTRU may thus be configured to use a different subframe offset for HARQ-ACK for different subframe subset configurations. For example, the WTRU may be preconfigured with multiple different value of k that may be used for determining the subframe(n+k) that is used for transmitting HARQ-ACK to a serving site that transmitted a DL transmission in subframe(n). Which value of k should be used for a given DL transmission may be dynamically indicated in the DCI that includes the downlink assignment for subframe(n). In an example, the WTRU may be configured to transmit the HARQ-ACK in any valid UL subframe (e.g., the first valid UL subframe) on or after subframe(n+k).” Marinier at [0204]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable

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		expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.

3. Claim 7

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7[pre]	A user equipment for transmitting uplink (UL) control information, comprising:	To the extent the preamble is limiting, at least under Pegasus’s apparent infringement theory, Marinier discloses “A user equipment for transmitting uplink (UL) control information, comprising.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “For example, time segregation may be utilized for preventing conflicts between the uplink transmissions of the plurality of MAC instances. When time segregation is utilized each of the first MAC instance and the second MAC instance may be assigned a respective subset of subframes for

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		transmitting in the uplink. For example, a first subset of subframes may be assigned to the first MAC instance and a second set of subframes may be assigned to the second MAC instance. The subframe subsets may be completely separated or may partially overlap. The first MAC instance and the second MAC instance may utilize non-synchronous subframe timing. The WTRU may determine to drop at least one symbol to be transmitted to the first serving site based on an allocated subframe of the second serving site overlapping with an allocated subframe of the first serving site. The symbol may be dropped in order to allow the WTRU to switch its physical layer configuration in order to transmit to a different serving site. The at least one symbol that is dropped may be the last symbol in the allocated subframe of the first serving site. In an example, the WRU may drop the first symbol of the allocated subframe of the second serving site.” Marinier at [0005]. “Due to limited number of subframes available for uplink transmission, one or more uplink procedures may be modified in order to ensure uplink resources are available for transmission to a given MAC instance. For example, a first hybrid automatic repeat request (HARQ) feedback timing relationship may be applied for transmissions sent using the first MAC instance, and a second HARQ timing relationship may be applied for transmission sent using the second MAC instance.” Marinier at [0006]. “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands. However, if the WTRU transmits in accordance with each of the signaled grants, the combination

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		may result in the WTRU exceeding its maximum transmission power. In this situation, the WTRU may be unable to transmit each signal at the power level requested the receptive schedulers, increasingly the likelihood of a failed transmission.” Marinier at [0064]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site. The UCI transmission to the first site (e.g., sent via the PUCCH, PUSCH, etc.) may conflict with the PUSCH transmission to the second site. Such a situation may cause numerous complications. For example, the WTRU may attempt to include the UCI (e.g., which was request by and/or pertains to transmissions associated with the first serving site) in the PUSCH transmission sent to the second serving site; however, the second serving site may be unaware that the WTRU is including the UCI in the PUSCH transmission, so the second serving site may fail to properly decode one or more of the UCI and/or the entire PUSCH transmission.” Marinier at [0065].

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		FIG. 1E Marinier at Fig. 1E. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable
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		expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
7[a]	a receiver configured to receive, from a base station, UL control channel resource set configuration information for UL control information transmission;	At least under Pegasus’s apparent infringement theory, Marinier discloses “a receiver configured to receive, from a base station, UL control channel resource set configuration information for UL control information transmission.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance.” Marinier at Abstract. “As shown in FIG. 1A, the communications system 100 may include wireless transmit/receive units (WTRUs) 102 a, 102 b, 102 c, and/or 102 d (which generally or collectively may be referred to as WTRU 102), a radio access network (RAN) 103/104/105, a core network 106/107/109, a public switched telephone network (PSTN) 108, the Internet 110, and other networks 112, though it will be appreciated that the disclosed embodiments contemplate any number of WTRUs, base stations, networks, and/or network elements. Each of the WTRUs 102 a, 102 b, 102 c, 102 d may be any type of device configured to operate and/or communicate in a wireless environment. By way of example, the WTRUs 102 a, 102 b, 102 c, 102 d may be configured to transmit and/or receive wireless signals and may include user equipment (UE), a mobile station, a fixed or mobile subscriber unit, a pager, a cellular telephone, a personal digital assistant (PDA), a smartphone, a laptop, a netbook, a personal computer, a wireless sensor, consumer electronics, and the like. The communications systems 100 may also include a base station 114 a and a base station 114 b. Each of the base stations 114 a, 114 b may be any type of device configured to wirelessly interface with at least one of the WTRUs 102 a, 102 b, 102 c, 102 d to facilitate access to one or more

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		communication networks, such as the core network 106/107/109, the Internet 110, and/or the networks 112.” Marinier at [0020]-[0021]. “For example, the WTRU 102 c shown in FIG. 1A may be configured to communicate with the base station 114 a, which may employ a cellular-based radio technology, and with the base station 114 b, which may employ an IEEE 802 radio technology.” Marinier at [0031]. “FIG. 1B is a system diagram of an example WTRU 102. As shown in FIG. 1B, the WTRU 102 may include a processor 118, a transceiver 120, a transmit/receive element 122, a speaker/microphone 124, a keypad 126, a display/touchpad 128, non-removable memory 130, removable memory 132, a power source 134, a global positioning system (GPS) chipset 136, and other peripherals 138. It will be appreciated that the WTRU 102 may include any sub-combination of the foregoing elements while remaining consistent with an embodiment. Also, embodiments contemplate that the base stations 114 a and 114 b, and/or the nodes that base stations 114 a and 114 b may represent, such as but not limited to transceiver station (BTS), a Node-B, a site controller, an access point (AP), a home node-B, an evolved home node-B (eNodeB), a home evolved node-B (HeNB), a home evolved node-B gateway, and proxy nodes, among others, may include some or all of the elements depicted in FIG. 1B and described herein.” Marinier at [0032]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical

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		channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “In an example, rather than physical channels being associated with a single serving site, a set of one or more physical channel may be associated with more than one serving site. For example, a given uplink transmission by the WTRU sent over an uplink physical channel may be received by multiple serving sites (e.g., eNBs), for example using a MAC instance that is common to multiple serving sites. Thus, an uplink physical channel (e.g., and/or reference signal) may be used for transmission of data and/or control information associated with more than one serving site, and a downlink physical channel (e.g., and/or reference signal) may be used for reception of data and/or control information associated with more than one serving site. The set of physical channels and/or reference signals used for communication with multiple serving sites may be mapped to a single MAC instance that is associated with each of the serving sites.” Marinier at [0084]. “Multiple sets of subframe subsets may be orthogonal to each other (e.g., non-overlapping in the time domain) and/or may be configured to overlap. For example, if two or more subframe subsets

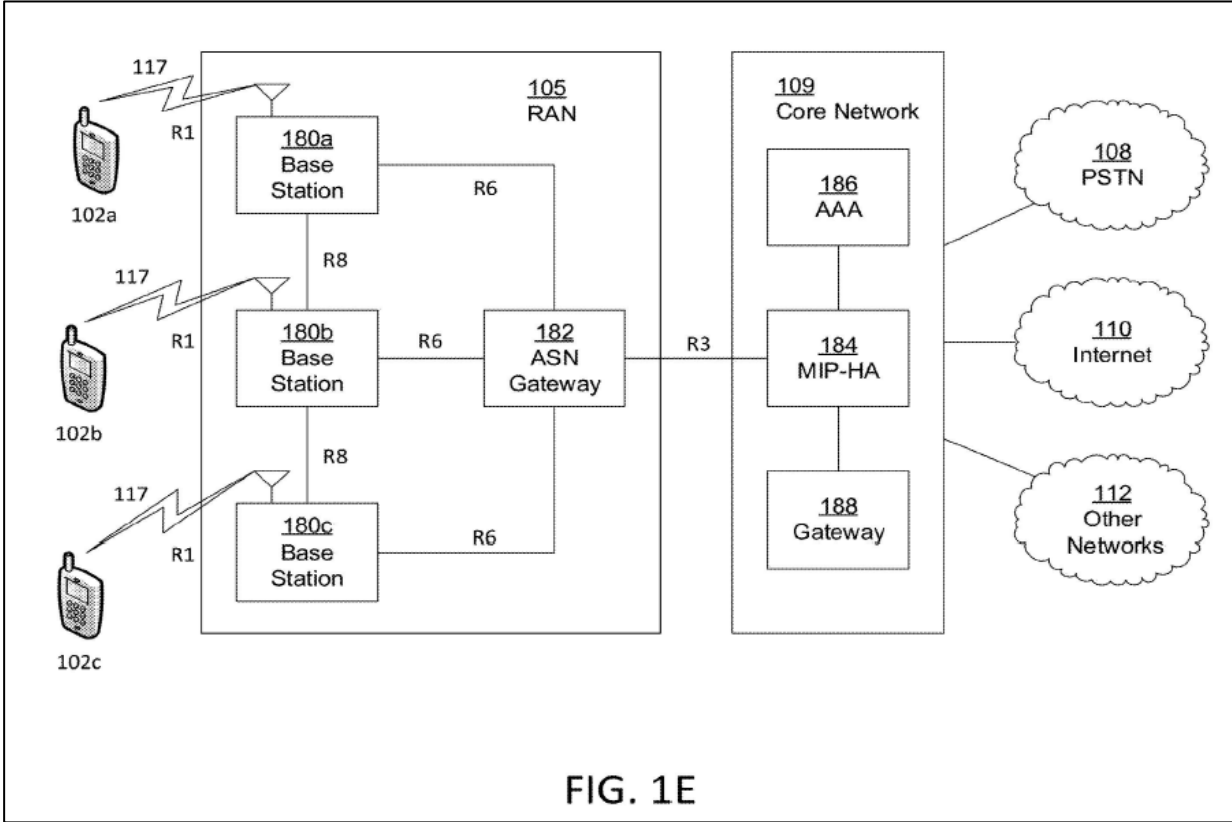
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		associated with different serving sites overlap, multiple UL transmissions to different serving sites may occur in the same subframe(s). For example, a WTRU may be configured to transmit a PUCCH transmission to a first serving site and a PUSCH transmission to a second serving site in the same subframe. As an example, the WTRU may receive an UL grant for transmission to a first serving site in subframe(n), and the WTRU may also be configured to transmit HARQ feedback via the PUCCH to a second serving site in the same subframe(n). As another example, the WTRU may be configured to transmit HARQ feedback to multiple serving sites in the same subframe.” Marinier at [0106]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset.

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		A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration.” Marinier at [0111]-[0112]. “In an example, rather than or in addition to WTRU-autonomous priority rules, the WTRU may receive one or more explicit indications from the network (e.g., one or more serving sites) for selecting between MAC instances in case of contention. The network based priority indications may be applicable to one or more of non-simultaneous and/or simultaneous use of physical resources. The explicit indication of priority may be received via one or more of L1 signaling (e.g., PHY signaling such as the PDCCH and/or E-PDCCH), L2 signaling (e.g., MAC), and/or L3 signaling (e.g., RRC). For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. . . . In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication.” Marinier at [0172]-[0173]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for

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		each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.).” Marinier at [0182]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on the identity of one or more transmission parameters applied for transmission to another serving site. For example, the WTRU may be preconfigured and/or receive RRC signaling that configures one or more parameters that the WTRU should apply for transmissions to a second serving site based on the parameters/configurations applied to a first serving site. As an example, the second set of parameters to be used for a transmission to a second serving site may be determined and/or derived from a first set of parameters that are indicated in DCI for a first serving site. The WTRU may have a predefined configuration and/or may receive a configuration via higher layer signaling that indicates which parameters are used

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		for transmission to a second serving site when certain other parameters are being used for a concurrent transmission to a first serving site in the same subframe.” Marinier at [0187]. “The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance.” Marinier at [0190]. “In an example, the WTRU may receive downlink control signaling (e.g., such as DCI on the E-PDCCH and/or the PDCCH) that instructs the WTRU to assign the corresponding grant to a specific subset of LCHs. For example, the received DCI may include an indication such that the received grant may be used for transmission of data from one or more of a specific LCH(s) (e.g., based on bearer identity), a specific bearer type (e.g., SRB), a specific priority (e.g., such as a WTRU-specific LCH priority), and/or the like.” Marinier at [0262].

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		FIG. 1B

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	Marinier at Fig. 1B.  FIG. 1E Marinier at Fig. 1E. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with	

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		any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
7[b]	a controller configured to determine one of UL control channel resource sets contained in the UL control channel resource set configuration information, and determine one of UL control channel resources configuring the determined one UL control channel resource set; and	At least under Pegasus’s apparent infringement theory, Marinier discloses “a controller configured to determine one of UL control channel resource sets contained in the UL control channel resource set configuration information, and determine one of UL control channel resources configuring the determined one UL control channel resource set.” For example, Marinier discloses this limitation based on the following exemplary citations: “FIG. 1B is a system diagram of an example WTRU 102. As shown in FIG. 1B, the WTRU 102 may include a processor 118, a transceiver 120, a transmit/receive element 122, a speaker/microphone 124, a keypad 126, a display/touchpad 128, non-removable memory 130, removable memory 132, a power source 134, a global positioning system (GPS) chipset 136, and other peripherals 138. It will be appreciated that the WTRU 102 may include any sub-combination of the foregoing elements while remaining consistent with an embodiment. Also, embodiments contemplate that the base stations 114 a and 114 b, and/or the nodes that base stations 114 a and 114 b may represent, such as but not limited to transceiver station (BTS), a Node-B, a site controller, an access point (AP), a home node-B, an evolved home node-B (eNodeB), a home evolved node-B (HeNB), a home evolved node-B gateway, and proxy nodes, among others, may include some or all of the elements depicted in FIG. 1B and described herein.” Marinier at [0032]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the

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		WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCell). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). . . . A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, rather than physical channels being associated with a single serving site, a set of one or more physical channel may be associated with more than one serving site. For example, a given uplink transmission by the WTRU sent over an uplink physical channel may be received by multiple serving sites (e.g., eNBs), for example using a MAC instance that is common to multiple serving sites. Thus, an uplink physical channel (e.g., and/or reference signal) may be used for transmission of data and/or control information associated with more than one serving site, and a downlink physical channel (e.g., and/or reference signal) may be used for reception of data and/or control information associated with more than one serving site. The set of physical channels

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		and/or reference signals used for communication with multiple serving sites may be mapped to a single MAC instance that is associated with each of the serving sites.” Marinier at [0084]. “Multiple sets of subframe subsets may be orthogonal to each other (e.g., non-overlapping in the time domain) and/or may be configured to overlap. For example, if two or more subframe subsets associated with different serving sites overlap, multiple UL transmissions to different serving sites may occur in the same subframe(s). For example, a WTRU may be configured to transmit a PUCCH transmission to a first serving site and a PUSCH transmission to a second serving site in the same subframe. As an example, the WTRU may receive an UL grant for transmission to a first serving site in subframe(n), and the WTRU may also be configured to transmit HARQ feedback via the PUCCH to a second serving site in the same subframe(n). As another example, the WTRU may be configured to transmit HARQ feedback to multiple serving sites in the same subframe.” Marinier at [0106]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL

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		subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset. A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration.” Marinier at [0111]-[0112]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.).” Marinier at [0182]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an

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		example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission.” Marinier at [0186]. “The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance.” Marinier at [0190]. “In an example, the WTRU may receive downlink control signaling (e.g., such as DCI on the E-PDCCH and/or the PDCCH) that instructs the WTRU to assign the corresponding grant to a specific subset of LCHs. For example, the received DCI may include an indication such that the received grant may be used for transmission of data from one or more of a specific LCH(s) (e.g., based on bearer identity), a specific bearer type (e.g., SRB), a specific priority (e.g., such as a WTRU-specific LCH priority), and/or the like.” Marinier at [0262].

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	<pre>graph TD 115_116_117[115/116/117] --- 122[122] 122 --- 120[120 Transceiver] 120 --- 118[118 Processor] 118 --- 124[124 Speaker/Microphone] 118 --- 126[126 Keypad] 118 --- 128[128 Display/Touchpad] 118 --- 134[134 Power Source] 118 --- 136[136 GPS Chipset] 118 --- 138[138 Peripherals] 118 --- 130[130 Non-Removable Memory] 118 --- 132[132 Removable Memory]</pre> FIG. 1B Marinier at Fig. 1B.	

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		To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
7[c]	a transmitter configured to transmit the UL control information through the determined UL control channel resource,	At least under Pegasus’s apparent infringement theory, Marinier discloses “a transmitter configured to transmit the UL control information through the determined UL control channel resource.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance.” Marinier at Abstract. “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for

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		transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “Due to limited number of subframes available for uplink transmission, one or more uplink procedures may be modified in order to ensure uplink resources are available for transmission to a given MAC instance. For example, a first hybrid automatic repeat request (HARQ) feedback timing relationship may be applied for transmissions sent using the first MAC instance, and a second HARQ timing relationship may be applied for transmission sent using the second MAC instance.” Marinier at [0006]. “FIG. 1B is a system diagram of an example WTRU 102. As shown in FIG. 1B, the WTRU 102 may include a processor 118, a transceiver 120, a transmit/receive element 122, a speaker/microphone 124, a keypad 126, a display/touchpad 128, non-removable memory 130, removable memory 132, a power source 134, a global positioning system (GPS) chipset 136, and other peripherals 138. It will be appreciated that the WTRU 102 may include any sub-combination of the foregoing elements while remaining consistent with an embodiment. Also, embodiments contemplate that the base stations 114 a and 114 b, and/or the nodes that base stations 114 a and 114 b may represent, such as but not limited to transceiver station (BTS), a Node-B, a site controller, an access point (AP), a home node-B, an evolved home node-B (eNodeB), a home evolved node-B (HeNB), a home evolved node-B gateway, and proxy nodes, among others, may include some or all of the elements depicted in FIG. 1B and described herein.” Marinier at [0032]. “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.

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		As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands.” Marinier at [0063]-[0064]. “In an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site. Additionally, in the same subframe the WTRU may be configured to transmit a PUSCH transmission based on a received UL grant from a second serving site.” Marinier at [0065]. “In an example, physical channels of a given MAC instance may be associated with a specific serving site. For example, a given uplink and/or downlink physical channel may be used for transmission between the WTRU and a single serving site. Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077].

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		“One or more physical channels and/or signals (e.g., reference signals) may be associated with each MAC instance. For example, a PUCCH may be associated with a given MAC instance. The PUCCH may be configured to transport uplink control information (e.g., HARQ feedback, channel state information (CSI) such as channel quality indicator (CQI), precoding matrix indicator (PMI), rank indicator (RI), Scheduling Request (SR), etc.) associated with the corresponding MAC instance to the applicable serving site. If multiple MAC instances are configured, multiple PUCCHs may be configured (e.g., one PUCCH for each MAC instance).” Marinier at [0079]. “A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command

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		applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0094]. “In an example, in order to facilitate the reception of power control commands that are applicable to a single MAC instance (e.g., and/or a single channel type of a single MAC instance) via any MAC instance maintained by the WTRU, the power control adjustment may include an index that is used to explicitly indicate which MAC instance the power control command is applicable to. For example, the indication (e.g., index) of which MAC instance a power control adjustment is applicable to may be received with the power control command in the DCI via any MAC instance. The indication may also specify what channel the power control command is applicable to. In this manner, any MAC instance may be used to adjust the power of a transmission to be performed using another MAC instance.” Marinier at [0096]. “The WTRU may be configured with a set of UL transmission parameters (e.g., power control parameters, set of virtual cell IDs, dedicated PUCCH resources, etc.) for each site. The WTRU may determine which set of UL transmission parameters to apply based on the subframe subset that includes the subframe in which the UL transmission is to occur.” Marinier at [0104]. “To allocate physical resources for transmission of multiple UL channels that are associated with different serving sites, each channel (e.g., channel type) may be assigned a subset of subframes that may be used for transmission of the channel to its corresponding serving site. In such a scenario, the WTRU may determine which UL transmission parameters to apply based on the type of channel

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		and/or type of transmission being sent in the subframe. In an example, different types of transmissions may be allocated subframe subsets. For example, CQI transmissions may be allocated a first subset of subframes and SRS transmissions may be allocated a second subset of subframes.” Marinier at [0105]. “For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “In an example a semi-static configuration including or more subframe subsets may be provided to the WTRU by higher layer signaling (e.g., RRC signaling). The higher layer signaling used to configure the subframe subset of a given serving site may be transmitted from that serving site and/or from a different serving site. In an example, if the WTRU is configured with a DL subframe subset (e.g., a set of subframes in which the WTRU may receive DL transmissions), the WTRU may implicitly determine the UL subframe subset pattern for the serving site based on the assigned DL subframe subset pattern. For example, the UL subframes may be the same as the DL subframes and/or the DL subframe subset may be mapped to a corresponding UL subframe subset.” Marinier at [0111]. “A configuration of a subset of subframes may also be referred to as a semi-static time division multiplexing (TDM) scheme. For example, a MAC instance may be configured semi-statically through RRC signaling to utilize physical channels in the UL according to a received TDM configuration. As an example, the TDM configuration may include a bitmap that is indicative of the subframes that are assigned to the WTRU as part of the TDM configuration. The bitmap may include a plurality of bits that each represent a subframe and/or frame which may be utilized by a

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		MAC instance for UL transmissions. For example, a first bit may represent a first subframe or frame, and a 1 may indicate that the first subframe or frame is assigned to the WTRU as part of its subframe subset, while a 0 may indicate that the first subframe or frame is not assigned to the WTRU as part of its subframe subset. The bitmap may be specific to a certain MAC instance and/or may be specific to a certain physical channel of the MAC instance. The bits of the bitmap may each correspond to a plurality of subframes, for example subframes in a repeating pattern. For example, a first bit may recommend a first subframe of each frame in the UL. The bitmap may be used for assigning subframes for UL and/or DL transmission to a serving site. In an example, the bitmap may be used to indicate which MAC instance a given subframe is associated with. For example, a first bit of the bitmap may be indicative of whether the subframes associated with the bit (e.g., identified with a subframe number and/or frame number) are associated with a first MAC instance or a second MAC instance. The bitmap configuration may be indicative of a pattern of subframe usage. For example, the series of bits of the bitmap may represent a plurality of sets of predetermined subframe subsets. The WTRU may indicate to the network/serving site a preferred subframe subset, for example using the bitmap. In an example, the TDM configuration may be indicated as one of set of predefined TDM subframe configurations. The predefined subframe TDM configuration(s) may establish for each subframe whether the subframe is used by a first MAC instance or by a second MAC instance. Such configuration may also indicate certain subframes where certain symbols of a subframe are not used for transmission for any MAC instance (e.g., a transmission gap), for instance in case the WTRU is to switch from one MAC instance to another. The WTRU may determine which site to transmit UCI to and/or when to transmit UCI based on the assigned TDM configuration (e.g., subframe subset configuration). For example, which subframe to use for transmitting UCI may be determined based on the identity of the MAC instance assigned to the subframe and/or the identity of the MAC instance that is associated with the UCI. For instance, the WTRU may determine the maximum number of PDSCH transmissions for which HARQ feedback is to be provided (e.g., on PUSCH and/or PUCCH) in a subsequent subframe based on the assigned TDM configurations for the different MAC instances. If the WTRU determines that more feedback is to be provided in a given subframe than its assigned resources may support (e.g., UCI is to be provided to both a first serving site and a second serving site in a subframe assigned to only the first serving site), the WTRU may determine to multiplex and/or

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		otherwise bundle the UCI/feedback and transmit the bundled UCI/feedback to the single assigned serving site.” Marinier at [0112]-[0113]. “A serving site may configure the WTRU to monitor unique ePDCCH resources. For example, each ePDCCH may use different resources (e.g., different RB(s) and/or different subframe configurations, etc.). The resources used for ePDCCH may indicate to the WTRU the appropriate resources to use in UL for that site. For example, there may be an implicit mapping between the DL resources used for ePDCCH transmission and the UL resources to be used for transmitting over to a given serving site.” Marinier at [0149]. “The configuration of the OCC to be used at a given serving site may be performed in a manner similar to those described with respect to configuring subframe subsets for a serving site (e.g., time segregation) and/or BW parts of the serving site (e.g., frequency segregation). Code segregation for a given serving site may be performed in addition to time segregation and/or frequency segregation. A WTRU may be configured with an OCC to be used for PUCCH transmissions. The OCC may be indicated in the initial PUCCH configuration for the serving site. The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission.” Marinier at [0155]. “In an example, the WTRU may be configured to operate using multiple sets of transmission parameters and may select one or more appropriate set(s) of transmission parameters to use in a given subframe based on various criteria. For example, if a given subframe is to be used by the WTRU in order to perform a plurality of uplink transmissions (e.g., transmissions to different serving sites), the WTRU may determine a set of transmission parameters to use for one or more PUSCH transmissions based on criteria such as the transmission requirements across a plurality of layers/serving sites. As an example, the transmission power requested and/or configured for each transmissions site may be considered by the WTRU when selecting appropriate transmission parameters to apply for transmissions sent to one or more of the serving sites. The sets of

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		transmission parameters that may be used by the WTRU may be obtained by the WTRU in a number of ways. For example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) via downlink control signaling such as a PDCCH transmission. In an example, the WTRU may receive one or more parameters (e.g., and/or one or more sets of parameters) as a semi-static configuration (e.g., for a configured grant such as a semi-persistent scheduling (SPS) grant, a configuration of alternate parameters, an RRC configuration of parameters, etc.). In an example, the WTRU may implicitly determine one or more parameters (e.g., and/or one or more sets of parameters). For example, the WTRU may implicitly determine one or more one or more parameters (e.g., and/or one or more sets of parameters) for a first layer/serving site based on one or more parameters (e.g., and/or one or more sets of parameters) that are applied at a second layer/serving site.” Marinier at [0182]. <i>See also id.</i> at [0183]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “The WTRU may be configured to indicate the set of transmission parameters used for a PUSCH transmission in the PUSCH transmission. For example, the WTRU may be configured to multiplex UCI with the PUSCH data being transmitted, and the UCI may indicate one or more of the

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		transmission parameters that were used by the WTRU to send the PUSCH transmission. For example, in a PUSCH transmission where the WTRU may select between two or more sets of PUSCH transmission parameters, the WTRU may indicate which set of parameters has been selected and/or which values were used for certain parameters. The selection may be encoded and multiplexed as UCI with UL-SCH data into the PUSCH transmission in predetermined resource elements.” Marinier at [0195]. “In an example, a WTRU may be preconfigured with a set of multiple values for k, and each DL subframe may be associated with a corresponding (e.g., semi-statically configured) value for k. For example, subframe(0) of a frame may use a first value for k that results in a valid UL subframe for transmitting HARQ-ACK, while subframe(1) of a frame may use a second value for k that results in a valid UL subframe for transmitting HARQ-ACK, etc. In an example, for each DL subframe a different set of PUCCH resources may be used. For example, the WTRU may be preconfigured with a set of PUCCH resources (e.g., $N_{PUCCH}^{(1)}$) that are specific to a given DL subframe.” Marinier at [0205]. <i>See also id.</i> at [0206]. “In an example, a first HARQ-ACK to be transmitted in a given subframe may be sent using a first set of PUCCH resources, while a second HARQ-ACK to be transmitted in the given subframe may be sent using a second set of PUCCH resources. The determination of which HARQ-ACK should be assigned to a given PUCCH resource may be preconfigured and/or may be determined based on a priority rule. For example, the priority may be based on which PDSCH transmission was received first in time by the WTRU. In an example, if a single HARQ-ACK is to be transmitted in a given subframe then the a single HARQ-ACK may be sent using a first set of PUCCH resources, and if two or more HARQ-ACKs are to be sent in the subframe, the two or more HARQ-ACKs may be bundled or multiplexed that are sent using another set of PUCCH resources. In an example, the number of PUCCH resources included in a bundle may be used to determine which PUCCH resource should be used. For example, one HARQ-ACK (e.g., unbundled) may be sent using a first set of PUCCH resources, two bundled HARQ-ACKs may be sent using a second set of PUCCH resources, three bundled or multiplexed HARQ-ACKs may use a third set of PUCCH resources, and so on.”

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		Marinier at [0212].

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		<pre>graph TD 115_116_117[115/116/117] --> 122[122] 122 --- 120[120 Transceiver] 120 --- 118[118 Processor] 118 --- 124[124 Speaker/Microphone] 118 --- 126[126 Keypad] 118 --- 128[128 Display/Touchpad] 118 --- 134[134 Power Source] 118 --- 136[136 GPS Chipset] 118 --- 138[138 Peripherals] 118 --- 130[130 Non-Removable Memory] 118 --- 132[132 Removable Memory]</pre> FIG. 1B Marinier at Fig. 1B.
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		To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
7[d]	wherein the UL control channel resource sets are configured for each UL bandwidth part (BWP) configured for the user equipment, and	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the UL control channel resource sets are configured for each UL bandwidth part (BWP) configured for the user equipment.” For example, Marinier discloses this limitation based on the following exemplary citations: “Methods and systems are described for physical layer operation when a WTRU is configured to transmit to a plurality of serving sites. For example, methods and systems are disclosed for providing physical layer resources to a plurality of medium access control (MAC) instances that are associated with different serving sites that are independently scheduled. For example, a WTRU may utilize a first physical layer configuration for transmitting to a first serving site associated with a first MAC instance. The WTRU may utilize a second physical layer configuration for transmitting to a second serving site associated with a second MAC instance. The WTRU may prevent conflicts between transmission requests from the first MAC instance and transmission requests from the second MAC instance (e.g., coordinate transmission requests). For example, preventing the conflicts may include utilizing one or more of time segregation or frequency segregation for transmissions associated with the first MAC instance and transmissions associated with the second MAC instance.” Marinier at [0004]. “In an example, frequency segregation may be utilized. For example, the WTRU may transmit using a first carrier when sending transmission associated with the first MAC instance, and the

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		WTRU may transmit using a second carrier when sending transmission associated with the second MAC instance. The carriers may be separated in the frequency domain.” Marinier at [0007]. “As another example, the WTRU may receive UL grants from two (or more) sites, and each received grant may be associated with a different UL channel and/or different UL frequency bands.” Marinier at [0064]. “For example, the WTRU may be configured to operate with one or more serving sites (e.g., also referred to as serving eNBs) in the downlink and/or the uplink. Each serving site may be associated with one or more serving cells. For example, a WTRU may operate using a single serving cell (e.g., component carrier) at first serving site (e.g., a MeNB) and may operate using a plurality of serving cells (e.g., a plurality of component carriers) at a second serving site (e.g., a SCell). Thus, a serving site may be associated with a plurality of serving cells. Each serving cell of a given serving site may be configured for operation at a corresponding component carrier (CC). A serving site may support one or multiple CCs. Each CC within a serving site may operate using a different frequency range than other CCs of the serving site, so that each of the serving cells associated with a given serving site may be transmitted using a different CC. However, serving cells from different serving sites may be transmitted using the same CC. Therefore, serving cells may be associated with the same CC but with different serving sites.” Marinier at [0072]. “As an example, frequency segregation may be performed in order to transmit to multiple serving sites in the same subframe. Frequency segregation may be used in addition to time segregation and/or without time segregation. For example, if a partially overlapping time segregation scheme is utilized, frequency segregation may also be utilized, for example for subframes for which there is partial overlap and/or for all subframes. For example, a WTRU may be configured with one of more frequency subband subsets for one or more serving sites. For example, if its first cell of a first serving site operates in the same frequency band and/or component carrier of a second cell of a second serving site, the MAC instances associated with the different serving sites may be

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		configured to use different subband subsets within the frequency band/component carrier. In an example, the bandwidth (BW) utilized by the different serving sites may be divided into a plurality of BW parts. Each serving site may be configured to utilize one or more of the BW parts for communicating with the WTRU. For example, each BW part may be treated as a component carrier in carrier aggregation. For example, each BW part may include corresponding PUCCH and PUSCH resources. Some bandwidth parts may include PUCCH without a PUSCH (e.g., for CSI reporting to a serving site) and/or PUSCH without PUCCH.” Marinier at [0131]. “A WTRU may be configured to transmit signals that span multiple BW parts. For example, a single SRS sequence may be transmitted over a full BW of a cell and/or serving site, which may span a plurality of BW parts. In an example, a WTRU may transmit different SRSs (e.g., each with its own set of parameters) for each BW part. The transmission power utilized by the WTRU may be specific to which BW part is used for transmission. For example, a WTRU may be configured with an independent maximum transmit powers (e.g., PCMAX) per BW part. For example, the WTRU may be perform UL transmission power control independently for each BW part. In another example, the WTRU may be configured with a single maximum transmit power value (e.g., PCMAX) for the entire BW. For example, if the maximum transmit power is determined across the whole BW, the WTRU may first determine the power to be utilized for PUCCH transmission in a given subframe, and may then allocate remaining power below the maximum transmit power for use transmitting the PUSCH. The PUCCH and PUSCH may be configured for transmission using power control parameters that are specific to the serving site associated with the channel transmission.” Marinier at [0133]-[0134]. “The WTRU may determine the configuration of the different BW parts and/or the network (e.g., one or more serving sites) may determine the configuration of BW parts. For example, the BW parts may be configured in a manner similar to subframe subsets are configured for time segregation. For example, any of the methods described herein for configured a subframe subset may be used for configuring a BW part for a given serving site and/or set of serving sites.” Marinier at [0139].

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		“In an example, an RRC message similar to a handover command may be received from a first serving site to which the WTRU is already connected, and the message may trigger the WTRU to perform an initial access procedure to a second serving site. For example, the RRC message may include dedicated PRACH resources and/or a dedicated preamble to be used for the RACH on the PRACH resources of the second serving site. The subbands (and/or BW part) within which a WTRU may attempt RACH may implicitly indicate whether or not the WTRU has an established radio link to another serving site (e.g., if RACH is performed in a first BW part the WTRU may have an established connection to a different serving site, if the WTRU attempts RACH in a second BW part the WTRU may lack a connection to another serving site). The PRACH resource used for the transmission of a preamble may indicate whether or not it has a radio link to another site. For example, certain dedicated RACH preambles and/or certain PRACH resources may be reserved for access attempts performed by WTRUs with an established connection to a different serving site. The WTRU may indicate whether the RACH is for the establishment of a secondary RRC connection or a primary RRC connection.” Marinier at [0152]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
7[e]	wherein the each UL BWP is activated through downlink (DL) control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the each UL BWP is activated through downlink (DL) control information.” For example, Marinier discloses this limitation based on the following exemplary citations:

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		“As an example, frequency segregation may be performed in order to transmit to multiple serving sites in the same subframe. Frequency segregation may be used in addition to time segregation and/or without time segregation. For example, if a partially overlapping time segregation scheme is utilized, frequency segregation may also be utilized, for example for subframes for which there is partial overlap and/or for all subframes. For example, a WTRU may be configured with one of more frequency subband subsets for one or more serving sites. For example, if its first cell of a first serving site operates in the same frequency band and/or component carrier of a second cell of a second serving site, the MAC instances associated with the different serving sites may be configured to use different subband subsets within the frequency band/component carrier. In an example, the bandwidth (BW) utilized by the different serving sites may be divided into a plurality of BW parts. Each serving site may be configured to utilize one or more of the BW parts for communicating with the WTRU. For example, each BW part may be treated as a component carrier in carrier aggregation. For example, each BW part may include corresponding PUCCH and PUSCH resources. Some bandwidth parts may include PUCCH without a PUSCH (e.g., for CSI reporting to a serving site) and/or PUSCH without PUCCH.” Marinier at [0131]. “A WTRU may be configured to transmit signals that span multiple BW parts. For example, a single SRS sequence may be transmitted over a full BW of a cell and/or serving site, which may span a plurality of BW parts. In an example, a WTRU may transmit different SRSs (e.g., each with its own set of parameters) for each BW part. The transmission power utilized by the WTRU may be specific to which BW part is used for transmission. For example, a WTRU may be configured with an independent maximum transmit powers (e.g., PCMAX) per BW part. For example, the WTRU may perform UL transmission power control independently for each BW part. In another example, the WTRU may be configured with a single maximum transmit power value (e.g., PCMAX) for the entire BW. For example, if the maximum transmit power is determined across the whole BW, the WTRU may first determine the power to be utilized for PUCCH transmission in a given subframe, and may then allocate remaining power below the maximum transmit power for use transmitting the PUSCH. The PUCCH and PUSCH may be configured for transmission using power control parameters that are specific to the serving site associated with the channel transmission.”

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		Marinier at [0133]-[0134]. “The WTRU may determine the configuration of the different BW parts and/or the network (e.g., one or more serving sites) may determine the configuration of BW parts. For example, the BW parts may be configured in a manner similar to subframe subsets are configured for time segregation. For example, any of the methods described herein for configured a subframe subset may be used for configuring a BW part for a given serving site and/or set of serving sites.” Marinier at [0139]. “In order for a WTRU to receive multiple DL transmissions on the same carrier (or on different carriers), the WTRU may be configured with time segregation or frequency segregation for DL transmissions in a manner similar to that as described for UL transmission. For example, a serving site/cell may indicate to the WTRU the amount of traffic it has buffered for that WTRU. The WTRU may obtain such the buffer metrics for each serving site. The WTRU may use the metric to determine ratio of resources (e.g., time resources, frequency resources, etc.) to be allocated for each serving site. The WTRU may request the appropriate amount of resources from each sites. If there was a previous allocation of resources that is still active, the WTRU may request modification of resources (e.g., fewer subframes assigned to a first serving site and/or a larger number of subframes assigned to a second serving site; fewer BW parts assigned to a first serving site and/or a larger BW parts of subframes assigned to a second serving site; etc.).” Marinier at [0146]. “In an example, an RRC message similar to a handover command may be received from a first serving site to which the WTRU is already connected, and the message may trigger the WTRU to perform an initial access procedure to a second serving site. For example, the RRC message may include dedicated PRACH resources and/or a dedicated preamble to be used for the RACH on the PRACH resources of the second serving site. The subbands (and/or BW part) within which a WTRU mat attempt RACH may implicitly indicate whether or not the WTRU has an established radio link to another serving site (e.g., if RACH is performed in a first BW part the WTRU may have an established connection to a different serving site, if the WTRU attempts RACH in a second BW part the WTRU may lack a connection to another serving site). The PRACH resource used for

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		the transmission of a preamble may indicate whether or not it has a radio link to another site. For example, certain dedicated RAC preambles and/or certain PRACH resources may be reserved for access attempts performed by WTRUs with an established connection to a different serving site. The WTRU may indicate whether the RACH is for the establishment of a secondary RRC connection or a primary RRC connection.” Marinier at [0152]. “In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0173]. <i>See also id.</i> at [0174]-[0175]. “One or more sets of transmission parameters to be applied during periods of concurrent transmission to different serving sites in the same subframe may be applicable for a predetermined period of time and/or bounded in time. The WTRU may determine when to start and/or stop deriving a second set of transmission parameters for a given MAC instance or for a specific PUSCH according various criteria. For example, the WTRU may determine whether or not to utilize separate transmission parameters for transmissions to different serving sites and/or for how long the separate parameters should be used based on explicit signaling. The WTRU may receive control signaling that indicates to the WTRU that the WTRU should determine separate sets of transmission parameters for the serving cells of different serving sites. The explicit signaling may indicate for how long the WTRU should continue to derive separate sets of parameters (e.g., a specific number of subframes; until explicit signaling indicates that separate parameters should no longer be used, etc.) and/or may explicitly indicate the second set of parameters. The explicit control signaling that indicates that separate sets of transmission parameters should be used may

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		be received by Layer 3 (e.g., RRC) signaling, for example as part of a procedure that adds and/or modifies a given MAC instance. In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 2 (e.g., MAC CE) signaling, for example as part of an indication for the concerned MAC instance or for one or more of the serving cells of the MAC instance. In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances. The WTRU may determine when to begin and/or stop determining and/or utilizing a second, separate set of transmission parameters for a given MAC instance and/or for a specific PUSCH based on the activation of MAC instance and/or the deactivation of a MAC instance. For example, the WTRU may be triggered to begin determining a separate set of transmission parameters for a given MAC instance based on the activation of the given MAC instance and/or the activation of a different MAC instance. The WTRU may be triggered to stop determining a separate set of transmission parameters for a given MAC instance based on the deactivation of the given MAC instance and/or the deactivation of a different MAC instance.” Marinier at [0190]-[0191]. “The WTRU may include PH information for each configured and/or activated MAC instance in a PHR transmitted to a specific serving site. In an example, the PH information may be reported for transmissions related to a PCell of each MAC instance, but not to SCells associated with the MAC instances. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on various criteria. For example, the WTRU may be triggered to send a PHR to one or more serving sites based on one or more of MAC instance/layer activation, MAC instance/layer deactivation, applying power scaling to a transmission in a given layer, a QoS requirement not being met in a given layer, and/or the like. For example, the WTRU may be triggered to send a PHR to one or more serving sites based on a MAC instance/layer being activated and/or deactivated. For example, the WTRU may trigger a

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		PHR to be sent based on WTRU receiving control signaling that configures a MAC instance of the WTRU configuration. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU removing a MAC instance that the WTRU was previously using and/or configured to use (e.g., following reception of control signaling deactivating the layer; the WTRU determining RLF for the concerned layer; other impairment events for the concerned layer; etc.). As an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that activates a MAC instance of the WTRU configuration. In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU deactivating a MAC instance of the WTRU configuration. The deactivation may be based on reception of control signaling indicating the layer should be deactivate and/or following the expiration of a timer indicting deactivation (e.g., WTRU-autonomous deactivation). In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that schedules the first transmission for a concerned MAC instance after the concerned MAC instance was last configured and/or activated (e.g., the first PUSCH transmission). In an example, the WTRU may be triggered to send PHRs to one or more serving sites based on the WTRU receiving control signaling that schedules the first transmission for a MAC instance/layer since the WTRU last deactivated, removed, and/or otherwise invalidated one or more other MAC instances (e.g., the first scheduled PUSCH transmission).” Marinier at [0220]-[0222] “In an example, the WTRU may be triggered to generate and/or send a QSR based on reception of control signaling that deactivates a MAC instance (e.g., upon deactivation of a secondary MAC instance). For example, the QSR may be generated based on a MAC instance being deactivated while there is still some data in the WTRU buffer(s) for the deactivated MAC instance. In an example, the QSR may be triggered if the WTRU has data buffered for a LCH/LCG associated with the deactivated MAC instance that is not mapped to any other layers. Such a QSR may be a trigger for radio bearer mobility for radio bearers of the deactivated MAC instance. In an example, the WTRU may be triggered to generate and/or send a QSR for multi-flow bearers (e.g., bearers mapped to multiple MAC instances/layers) that were utilized by a deactivate MAC instance. Such

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		a QSR may be used to make scheduling adjustments due to the change of available resources for a given WTRU.” Marinier at [0235]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
8	The user equipment according to claim 7, wherein the determining of the one of the UL control channel resource sets is performed based on a size of the UL control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the determining of the one of the UL control channel resource sets is performed based on a size of the UL control information.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may determine one or more transmission parameters to be applied for a given uplink grant in a first layer (e.g., associated with a first serving site and/or a first MAC instance) based on the parameters applied to an uplink transmission in a second layer (e.g., associated with a second serving site and/or a second MAC instance). For example, for a subframe during which concurrent/simultaneous UL transmission is to be performed for more than one MAC instance/layer, the WTRU may be configured to select one or more transmission parameters to use for a PUSCH transmission in a first layer associated with a first serving site (e.g., and/or MAC instance) based on the existence of a transmission in a second layer associated with a first serving site (e.g., the parameters used in the first layer may change depending on whether or not a transmission in a second layer is to occur concurrently) and/or based on one more characteristics of UL transmission on the second layer. For example, one or more of a modulation and coding scheme (MCS), a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission in a first

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		layer associated with a first serving site may be selected based on whether or not transmission is to be sent to a second serving site concurrently. In an example, one or more of an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission in a first layer associated with a first serving site may be selected based the identity of one or more uplink transmission parameters to be used for concurrent transmission to a second serving site (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, and/or the transport block size used for transmission to the second serving site).” Marinier at [0183]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may be configured with a first configuration (e.g., a layer-specific configuration) for performing logical channel prioritization. The first configuration (e.g., a layer-specific configuration) may include one or more of a PBR configuration (e.g., prioritizedBitRate, bucketSizeDuration, etc.), a priority for a one or more radio bearer and/or logical channel (LCH), and/or the like. For example, the first configuration may be received for a LCH that is configured for multi-flow operation.”

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		Marinier at [0258]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
9[a]	The user equipment according to claim 7, wherein the receiver receives, from the base station, DL control information containing information that indicates the one of the UL control channel resources for the UL control information transmission,	At least under Pegasus's apparent infringement theory, Marinier discloses "wherein the receiver receives, from the base station, DL control information containing information that indicates the one of the UL control channel resources for the UL control information transmission." For example, Marinier discloses this limitation based on the following exemplary citations: "FIG. 1B is a system diagram of an example WTRU 102. As shown in FIG. 1B, the WTRU 102 may include a processor 118, a transceiver 120, a transmit/receive element 122, a speaker/microphone 124, a keypad 126, a display/touchpad 128, non-removable memory 130, removable memory 132, a power source 134, a global positioning system (GPS) chipset 136, and other peripherals 138. It will be appreciated that the WTRU 102 may include any sub-combination of the foregoing elements while remaining consistent with an embodiment. Also, embodiments contemplate that the base stations 114 a and 114 b, and/or the nodes that base stations 114 a and 114 b may represent, such as but not limited to transceiver station (BTS), a Node-B, a site controller, an access point (AP), a home node-B, an evolved home node-B (eNodeB), a home evolved node-B (HeNB), a home evolved node-B gateway, and proxy nodes, among others, may include some or all of the elements depicted in FIG. 1B and described herein." Marinier at [0032]. "For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from

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		each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “n an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077].

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		“A PDCCH and/or enhanced PDCCH (E-PDCCH) may be associated with each serving cell of a given MAC instance. For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). If carrier aggregation is used and the carrier indication field (CIF) is configured for a given MAC instance, then the WTRU may attempt to receive the PDCCH and/or E-PDCCH in PCell of the MAC instance, but not on the zero or more SCells associated with the MAC instance. More than one E-PDCCH set may be configured for a given serving cell associated with a MAC instance. A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).” Marinier at [0082]. “In an example, the identity of the MAC instance that a received power control adjustment is applicable to may be determined based on the identity of the MAC instance used for to receive the DCI that included the corresponding TPC command field.” Marinier at [0092]. “For example, a field in the DCI used to send the power control command (e.g., via a PDCCH of one or more MAC instances) may be used to indicate to the WTRU whether the power control command is a global power control command or a power control command that is specific to a given MAC instance (e.g., the MAC instance over which the power control command was received). The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for

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		encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one or more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one or more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0093]-[0094]. “For example, DCI included in a PDCCH transmission associated with a first MAC instance may be received in subframe(n). The DCI may indicate a power control adjustment for SRS. In subframe(n+k), SRS may be scheduled for one or more MAC instances, for example a second MAC instance. The WTRU may determine to apply the power control command received in subframe(n) of the first MAC instance to the transmission of SRS in subframe(n+k) via the second MAC instance. Thus, the power control adjustment received in subframe(n) may be valid even though the MAC instance used for transmission of the DCI that included the power control command may be different than that used for transmitting in the uplink. Such a scheme may be used when SRS may be used by multiple reception points in the network (e.g., multiple serving sites)” Marinier at [0095]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may

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		be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “The network may indicate the density and/or pattern of subframes assigned to the WTRU when transmitting an UL grant on DCI Format 0/4 to the WTRU (e.g., and/or when transmitting another type of DCI). If the WTRU has already been allocated a subset of subframes for use at another serving site, the WTRU may indicate its current subframe subset pattern for the other site(s) to a serving site from which the WTRU is requesting a new subframe subset. Rather than or in addition to sending an indication of its current subframe subset pattern associated with other serving site(s) when requesting a subframe subset from a different serving site, the WTRU may indicate to the different serving site that it is currently configured for UL transmission with another site during the subframe subset request (e.g., by identifying the other serving sites by serving site ID and/or cell ID). Such an indication may trigger the different serving sites to exchange information related to the current subframe subsets and/or negotiate a new subframe subset for one or more of the serving sites (e.g., over X2, X2bis, or any other interface between the two serving sites).” Marinier at [0109]. “The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission. In an example, the OCC to be used for PUCCH for transmitting HARQ feedback may be assigned based on the DCI used for downlink assignment.” Marinier at [0105]. “For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. For example, the flag and/or other indication may indicate that the grant will

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		have a specific priority, for example a priority that is different that a default priority for a typical grant of the given type. The WTRU may use the indication of priority when performing logical channel prioritization such that data with a corresponding priority may be included in the MAC PDU that may be transmitted in the transport block that corresponds to the received grant. In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication. The WTRU may implicitly determine that such priority may be applied to the preamble transmission as a function of the indicated PRACH parameter (e.g., preamble index, PRACH mask index, etc.) and or associated PRACH resource (e.g., in case partitioning or PRACH is configured). [0173] In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0172]-[0173]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of

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		coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on a second set of DCI that is received for the subframe. For example, first DCI may be received and may define a set of transmission parameters to be applied for transmitting to the first serving site, and second DCI may be received and may define a set of transmission parameters to be applied for transmitting to the second serving site. The DCI for the first serving site may be received via a PDCCH and/or E-PDCCH transmission from the first serving site, and the DCI for the second serving site may be received via a PDCCH and/or E-PDCCH transmission from the second serving site. In another example, the DCI for both serving sites may be received from one of the serving sites. In a subframe during which the WTRU successfully decodes a plurality of DCI messages indicating an uplink grant for the same PUSCH, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power. In an example, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power while minimizing (and/or avoiding) the application of power reduction and/or power scaling for the allocated PUSCH transmissions.” Marinier at [0189]. “In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ

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		feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances.” Marinier at [0190]. “The WTRU may thus be configured to use a different subframe offset for HARQ-ACK for different subframe subset configurations. For example, the WTRU may be preconfigured with multiple different value of k that may be used for determining the subframe(n+k) that is used for transmitting HARQ-ACK to a serving site that transmitted a DL transmission in subframe(n). Which value of k should be used for a given DL transmission may be dynamically indicated in the DCI that includes the downlink assignment for subframe(n). In an example, the WTRU may be configured to transmit the HARQ-ACK in any valid UL subframe (e.g., the first valid UL subframe) on or after subframe(n+k).” Marinier at [0204].

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		<pre>graph TD 115_116_117[115/116/117] --- 122[122] 122 --- 120[120 Transceiver] 120 --- 118[118 Processor] 118 --- 124[124 Speaker/Microphone] 118 --- 126[126 Keypad] 118 --- 128[128 Display/Touchpad] 118 --- 134[134 Power Source] 118 --- 136[136 GPS Chipset] 118 --- 138[138 Peripherals] 118 --- 130[130 Non-Removable Memory] 118 --- 132[132 Removable Memory]</pre> FIG. 1B Marinier at Fig. 1B.
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		To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.
9[b]	wherein the one of the UL control channel resources is indicated from the base station through the DL control information.	At least under Pegasus’s apparent infringement theory, Marinier discloses “wherein the one of the UL control channel resources is indicated from the base station through the DL control information.” For example, Marinier discloses this limitation based on the following exemplary citations: “For example, the WTRU may receive grants (e.g., dynamic grants via a Physical Downlink Control Channel (PDCCH), semi-persistent scheduling (SPS) grants, other uplink grants, etc.) from each of the two scheduling sites. The grants may direct the WTRU to transmit over on an uplink (UL) channel (e.g., Physical Uplink Control Channel (PUCCH), Physical Uplink Shared Channel (PUSCH)), and two or more grants may allocate resources to the WTRU that overlap in the frequency and/or time domain(s). In such a situation, the WTRU may be unable to comply with the grant transmitted from one or more of the sites.” Marinier at [0063]. “n an example, the WTRU may be configured to transmit uplink control information (UCI) in a given subframe based on a Physical Downlink Shared Channel (PDSCH) transmission received from a first serving site.” Marinier at [0065]. “Similarly, a given reference signal transmitted in the uplink and/or the downlink may be associated with the channel between the WTRU and a single serving site. The set of physical

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		channels and/or set of reference signals used for communication with a certain serving site may be mapped to one MAC instance at the WTRU. When the WTRU is configured to operate with more than one serving site, multiple MAC instances may be utilized. For example, the WTRU may utilize instantiate a MAC instance for each serving site it is connected to. Each MAC instance may utilize a corresponding set of physical channels in order to communicate with the serving site. For example, a first MAC in the WTRU instance may be may be configured to connect to and/or communicate with a first serving site (e.g., a MeNB), and a second MAC instance in the WTRU may be may be configured to connect to and/or communicate with a second serving site (e.g., a SCeNB). The first MAC instance may be associated with a first set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the first serving site, and the second MAC instance may be associated with a second set of physical channels (e.g., a PDCCH, a PDSCH, a PUCCH, a PUSCH, etc.) that may be used for transmissions between the WTRU and the second serving site. The first MAC instance may be configured to map transport channels to its corresponding set of physical channels.” Marinier at [0076]-[0077]. “A PDCCH and/or enhanced PDCCH (E-PDCCH) may be associated with each serving cell of a given MAC instance. For example, for a given serving cell of a MAC instance, the WTRU may attempt to receive the PDCCH and/or E-PDCCH in at least one search space (e.g., a common search space, a WTRU-specific, etc.). If carrier aggregation is used and the carrier indication field (CIF) is configured for a given MAC instance, then the WTRU may attempt to receive the PDCCH and/or E-PDCCH in PCell of the MAC instance, but not on the zero or more SCells associated with the MAC instance. More than one E-PDCCH set may be configured for a given serving cell associated with a MAC instance. A PDCCH and/or E-PDCCH may be used to transport control information to the corresponding MAC instance in the WTRU. For example, one or more of PDSCH assignments, PUSCH grants, physical random access channel (PRACH) orders, transmit power control (TPC) commands, CSI requests, aperiodic sounding reference signal (SRS) request, and/or the like may be transmitted on the PDCCH and/or E-PDCCH. The downlink control information (DCI) received on a given PDCCH (and/or E-PDCCH) may be applicable to the MAC instance associated with that PDCCH (and/or E-PDCCH).”

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		Marinier at [0082]. “In an example, the identity of the MAC instance that a received power control adjustment is applicable to may be determined based on the identity of the MAC instance used for to receive the DCI that included the corresponding TPC command field.” Marinier at [0092]. “For example, a field in the DCI used to send the power control command (e.g., via a PDCCH of one or more MAC instances) may be used to indicate to the WTRU whether the power control command is a global power control command or a power control command that is specific to a given MAC instance (e.g., the MAC instance over which the power control command was received). The WTRU may be configured to receive power control adjustments/commands using DCI Format 3. In an example, the WTRU may be configured with multiple TPC RNTIs in order to determine which channel a given power control command is applicable to. For example, the WTRU may be configured with one or more of a TPC-PUSCH-RNTI that may be used for encoding/decoding power control commands for the PUSCH, a TPC-PUCCH-RNTI that may be used for encoding/decoding power control commands for the PUCCH, and/or a TPC-SRS-RNTI that may be used for encoding/decoding power control commands for SRS transmissions. In an example, the WTRU may be configured with multiple TPC RNTIs for each MAC instance. For example, the WTRU may have a first set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a first MAC instance, a second set of one of more TPC RNTIs (e.g., one or more of a TPC-PUSCH-RNTI, a TPC-PUCCH-RNTI, a TPC-SRS-RNTI, etc.) for receiving power control adjustments for a second MAC instance, and so forth. In this manner, a TPC command applicable to any of the channels for any MAC instance may be transmitted by the network using any MAC instance. For example, a power control command for the PUCCH of a first MAC instance may be sent to the WTRU using a second MAC instance by encoding the DCI including the power control command with the TPC-PUCCH-RNTI associated with the first MAC instance. In another example, the MAC instance for which a given power control command is applicable may be used to transmit the DCI

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		including the power control command and the WTRU may be configured to associate a given power control command with the MAC instance over which the power control command was received.” Marinier at [0093]-[0094]. “For example, DCI included in a PDCCH transmission associated with a first MAC instance may be received in subframe(n). The DCI may indicate a power control adjustment for SRS. In subframe(n+k), SRS may be scheduled for one or more MAC instances, for example a second MAC instance. The WTRU may determine to apply the power control command received in subframe(n) of the first MAC instance to the transmission of SRS in subframe(n+k) via the second MAC instance. Thus, the power control adjustment received in subframe(n) may be valid even though the MAC instance used for transmission of the DCI that included the power control command may be different than that used for transmitting in the uplink. Such a scheme may be used when SRS may be used by multiple reception points in the network (e.g., multiple serving sites)” Marinier at [0095]. “The WTRU may be configured with multiple subframe subsets to use for transmissions to different serving sites in a variety of ways. For example, higher layer signaling (e.g., RRC signaling) may be used to configured to the WTRU with the subframe subsets. The high layer signaling may be received from any of the serving sites. For example, a first serving site may configure the subframe subsets to be used for the first serving site and a second subframe subset to be used with a second serving site. In an example, physical layer signaling may be used to indicate a subframe subset to the WTRU. For example, the WTRU may receive a UL grant using DCI Format 0/4 on the PDCCH, and the DCI may indicate the subframe subset pattern that a WTRU may use for that site.” Marinier at [0108]. “The network may indicate the density and/or pattern of subframes assigned to the WTRU when transmitting an UL grant on DCI Format 0/4 to the WTRU (e.g., and/or when transmitting another type of DCI). If the WTRU has already been allocated a subset of subframes for use at another serving site, the WTRU may indicate its current subframe subset pattern for the other site(s) to a serving site from which the WTRU is requesting a new subframe subset. Rather than or in addition

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		to sending an indication of its current subframe subset pattern associated with other serving site(s) when requesting a subframe subset from a different serving site, the WTRU may indicate to the different serving site that it is currently configured for UL transmission with another site during the subframe subset request (e.g., by identifying the other serving sites by serving site ID and/or cell ID). Such an indication may trigger the different serving sites to exchange information related to the current subframe subsets and/or negotiate a new subframe subset for one or more of the serving sites (e.g., over X2, X2bis, or any other interface between the two serving sites).” Marinier at [0109]. “The OCC to be used for a PUCCH transmission may depend on the type of PUCCH format used for the PUCCH transmission. In an example, the OCC to be used for PUCCH for transmitting HARQ feedback may be assigned based on the DCI used for downlink assignment.” Marinier at [0105]. “For example, the WTRU may receive L1 signaling include DCI via one or more of the PDCCH and/or E-PDCCH (e.g., for dynamic and/or semi-persistently scheduled grants). The DCI may include a flag and/or other indication of a priority value that may be associated with the grant included in the DCI. For example, the flag and/or other indication may indicate that the grant will have a specific priority, for example a priority that is different that a default priority for a typical grant of the given type. The WTRU may use the indication of priority when performing logical channel prioritization such that data with a corresponding priority may be included in the MAC PDU that may be transmitted in the transport block that corresponds to the received grant. In an example, the WTRU may receive DCI that triggers the transmission of a preamble (e.g., a PDCCH order for random access and/or for the purpose of proximity detection). The DCI may include a flag and/or other indication of a priority value for the preamble transmission (and/or possibly any WTRU-autonomous preamble retransmission for the concerned procedure). Flags or indications of priority in DCI may indicate that the grant is of higher priority than a grant that does not include the flag or indication. The WTRU may implicitly determine that such priority may be applied to the preamble transmission as a function of the indicated PRACH parameter (e.g., preamble index, PRACH mask index, etc.) and or associated PRACH resource (e.g., in case partitioning or PRACH is configured).

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		[0173] In an example, the WTRU may receive DCI via L1 signaling that may activate a specific prioritization rule for the concerned MAC instance. For example, the activation of the priority rule may be time-limited, and an indication of the length of time the priority rule should be used be may also be signaled in the concerned DCI. For example, the DCI may indicate that transmission associated with a first MAC instance may have higher priority than transmissions for another MAC instance for a specified period of time. The WTRU may transmit a HARQ feedback acknowledgement when it receives such DCI. In another example, the DCI may trigger the WTRU to begin using (and/or stop using) one or more of the priority criteria described with respect to FIG. 2.” Marinier at [0172]-[0173]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving sites based on DCI contents received for one or more of the serving sites. As an example, the WTRU may receive DCI applicable to a PUSCH transmission to a given serving site for one or more subframes (e.g., a dynamic grant on PDCCH, an SPS configuration, an SPS activation message, etc.). The DCI may indicate multiple values for one or more transmission parameters (e.g., an MCS, a redundancy version, a total number of allocated PRBs, a number of coded symbols for control information, a transport block size, etc.), and the WTRU may select which of the values should be applied based on whether the WTRU is concurrently transmitting to another serving site in the same subframe as the PUSCH transmission. For example, a received grant may include two values for the MCS, where one MCS value is applicable to transmissions where the WTRU is not performing concurrent transmissions to multiple serving sites in the same subframe and a second is applicable to transmissions where the WTRU is performing concurrent transmission to multiple serving sites in the same subframe.” Marinier at [0186]. “In an example, the WTRU may determine the transmission parameters to apply for transmission to a given serving site based on a second set of DCI that is received for the subframe. For example, first DCI may be received and may define a set of transmission parameters to be applied for transmitting to the first serving site, and second DCI may be received and may define a set of

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		transmission parameters to be applied for transmitting to the second serving site. The DCI for the first serving site may be received via a PDCCH and/or E-PDCCH transmission from the first serving site, and the DCI for the second serving site may be received via a PDCCH and/or E-PDCCH transmission from the second serving site. In another example, the DCI for both serving sites may be received from one of the serving sites. In a subframe during which the WTRU successfully decodes a plurality of DCI messages indicating an uplink grant for the same PUSCH, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power. In an example, the WTRU may select which set of parameters (e.g., which DCI) to use for the uplink transmission as a function of the grant that would maximize the transmission of data and the use of the WTRU's transmission power while minimizing (and/or avoiding) the application of power reduction and/or power scaling for the allocated PUSCH transmissions.” Marinier at [0189]. “In an example, explicit control signaling that indicates that separate sets of transmission parameters should be used may be received by Layer 1 DCI, for example in DCI that activates a second MAC instance/second set of transmission parameters. The WTRU may transmit HARQ feedback for the Layer 1 DCI. Explicit signaling (e.g., via Layer 1, Layer 2, and/or Layer 3) may be used to indicate to the WTRU that it should stop determining separate transmission parameters to be applied for different MAC instances.” Marinier at [0190]. “The WTRU may thus be configured to use a different subframe offset for HARQ-ACK for different subframe subset configurations. For example, the WTRU may be preconfigured with multiple different value of k that may be used for determining the subframe(n+k) that is used for transmitting HARQ-ACK to a serving site that transmitted a DL transmission in subframe(n). Which value of k should be used for a given DL transmission may be dynamically indicated in the DCI that includes the downlink assignment for subframe(n). In an example, the WTRU may be configured to transmit the HARQ-ACK in any valid UL subframe (e.g., the first valid UL subframe) on or after subframe(n+k).”

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		Marinier at [0204]. To the extent it is found that Marinier does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that Marinier does not anticipate this claim, Marinier renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the art, and/or in combination with other prior art references identified in the cover pleading or herein. A person of ordinary skill in the art would have been motivated to combine Marinier with any of the other prior art references identified in the cover pleading or herein with a reasonable expectation of success because each of these references contains familiar elements within the same field of endeavor to address the same known problems, according to known methods which would yield predictable results.