

EXHIBIT A-4

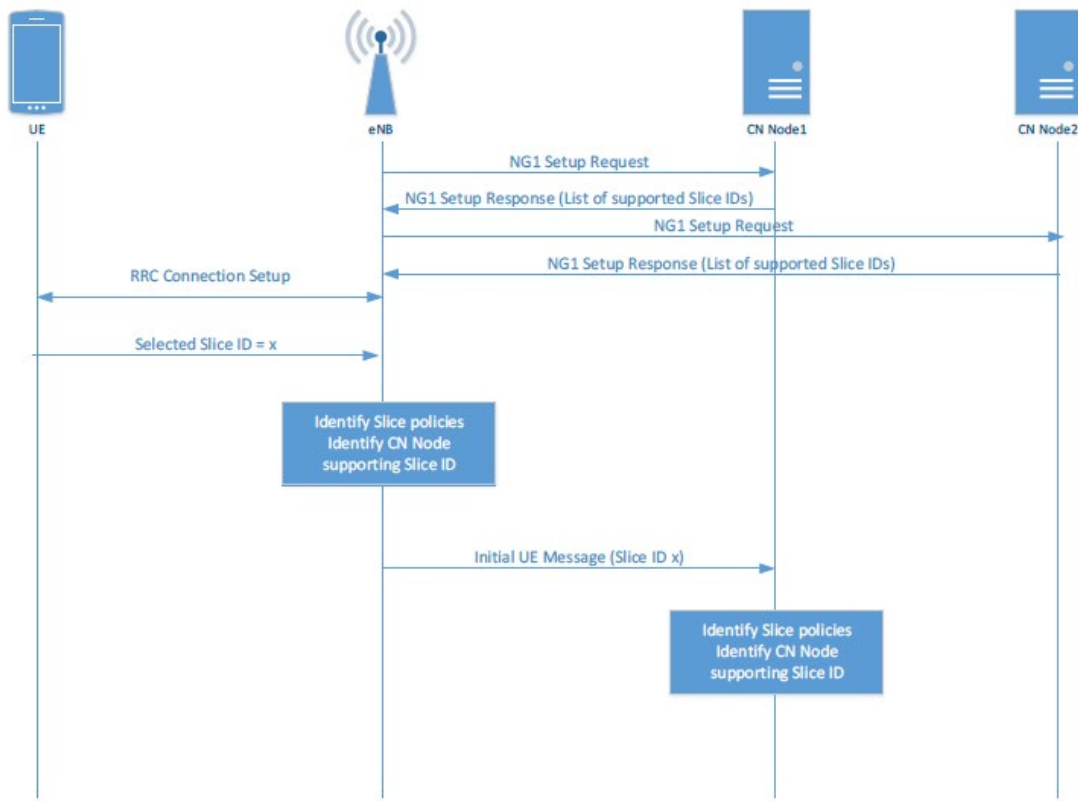
Summary of Invalidity Analysis of U.S. Patent No. 11,627,631 (“’631 Patent”) in view of 3GPP TR 38.801 V0.4.0 (2016-08) 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Study on New Radio Access Technology; Radio Access Architecture and Interfaces (Release 14) (“TR 38.801 V0.4.0”)

3GPP TR 38.801 V0.4.0 (2016-08) 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Study on New Radio Access Technology; Radio Access Architecture and Interfaces (Release 14) (“TR 38.801 V0.4.0”) was published on September 13, 2016. Therefore, TR 38.801 V0.4.0 qualifies as prior art to the ’631 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 ’631 Patent are invalid as expressly and/or inherently anticipated by TR 38.801 V0.4.0.

To the extent that TR 38.801 V0.4.0 is found not to anticipate, expressly or inherently, one or more of the asserted claims of the ’631 Patent, at least under Pegasus’s apparent infringement theory, these claims are invalid as obvious in view of TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
1[pre]	A method for transmitting and receiving data, the method comprising:	To the extent the preamble is limiting, at least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses a method for transmitting and receiving data. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:  <pre> sequenceDiagram participant UE participant eNB participant CN1 as CN Node1 participant CN2 as CN Node2 eNB->>CN1: NG1 Setup Request CN1-->>eNB: NG1 Setup Response (List of supported Slice IDs) eNB->>CN2: NG1 Setup Request CN2-->>eNB: NG1 Setup Response (List of supported Slice IDs) eNB->>UE: RRC Connection Setup UE->>eNB: Selected Slice ID = x Note over eNB: Identify Slice policies Identify CN Node supporting Slice ID eNB->>CN1: Initial UE Message (Slice ID x) Note over CN1: Identify Slice policies Identify CN Node supporting Slice ID </pre> Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN TR 38.801 V0.4.0 at Fig. 9.2.1-1.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

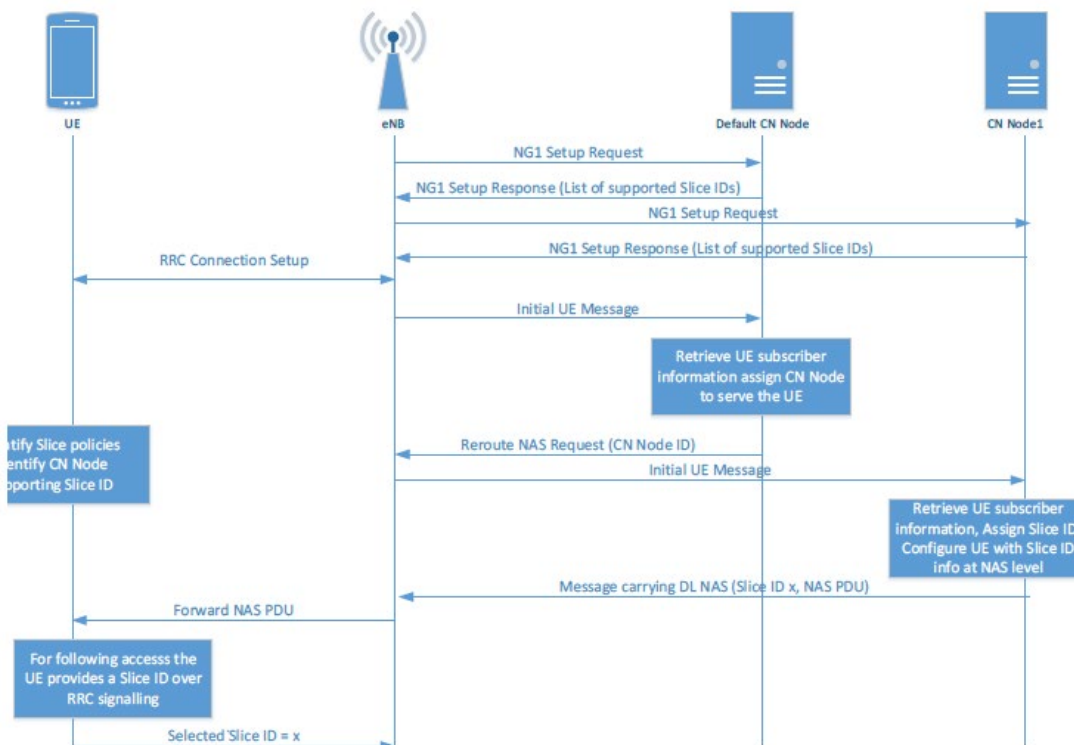


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN
 TR 38.801 V0.4.0 at Fig. 9.2.1-2

To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
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		combine TR 38.801 V0.4.0 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[a]	deciding, by a source base station (BS), whether to perform a handover;	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses deciding, by a source base station (BS), whether to perform a handover. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: Functions specific for New RAN: - Network Slice support - This function provides the capability for NR RAN to support network slicing - Tight Interworking with LTE - This function enables tight interworking between NR and evolved E-UTRA by means of data flow aggregation. This function includes at least dual connectivity. Interworking with evolved E-UTRA is supported for collocated and non-collocated site deployments. - Multi-connectivity - This function provides means for connectivity between an New RAN node and multiple New RAN nodes by means of data flow aggregation. - evolved E-UTRA-NR handover through a New RAN interface - This function provides means for evolved E-UTRA-NR handover via the direct interface between an eLTE eNB and a NR BS. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		New RAN may also include other functions: - Contacting UEs in inactive mode (feasibility of UE Inactive mode to be further studied and coordinated with RAN2) - In the inactive mode, the UE context is stored in RAN and UP data is buffered in RAN. - Direct services support (further study related with D2D, coordinate with RAN1, RAN2) - This function provides communication whereby UEs can communicate with each other directly - Interworking with non-3GPP systems - This function provides interworking between NR and Non-3GPP RAT (e.g. WLAN). - evolved E-UTRA/E-UTRA - NR handover via CN - This function provides means for evolved E-UTRA/E-UTRA - NR handover via CN. Note: Support of the E-UTRA - NR HO via CN function depends on progress in SA2. When discussing solutions to support this function, RAN3 needs to consider factors such as adaptation of the source RAN/CN to the target RAN/CN - evolved E-UTRAN-NR inactive mode mobility using a direct interface between an eLTE eNB and an NR BS. - This function provide means for UE mobility in a RAN controlled inactive mode between NR and evolved E-UTRAN using a direct interface between an eLTE eNB and an NR BS for context fetching and paging. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.1.2.2 Procedural aspects The procedures defined under section 10.1.2.8 (Dual Connectivity operation) in TS 36.300 [12] are listed below. In this list, LTE eNB and gNB connected via Xx are considered to have the role similar to MeNB (or eNB without DC) and SeNB, respectively. The DC procedures defined in TS 36.423 [13] should be used as baseline. - SeNB Addition - SeNB Modification (MeNB initiated SeNB Modification) - SeNB Modification (SeNB initiated SeNB Modification) - Intra-MeNB handover involving SCG change - SeNB Release (MeNB initiated SeNB Release) - SeNB Release (SeNB initiated SeNB Release) - Change of SeNB - MeNB to eNB Change - SCG change - eNB to MeNB change - Inter-MeNB handover without SeNB change TR 38.801 V0.4.0 at 21.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.2.1.2 Inter-RAT handover with LTE There are three inter-RAT handover with LTE scenarios as shown in Figure 7.2.1.2-1. Figure 7.2.1.2-1: Inter-RAT handover with LTE scenarios NOTE 1: The interface between EPC and 5G CN is pending to SA2. TR 38.801 V0.4.0 at 22. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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]	transmitting, from the source BS to a target BS, a handover request message when it is	At least under Pegasus’s apparent infringement theory, TR 38.801 V0.4.0 discloses transmitting, from the source BS to a target BS, a handover request message when it is decided to perform the handover. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
	decided to perform the handover,	Functions specific for New RAN: - Network Slice support - This function provides the capability for NR RAN to support network slicing - Tight Interworking with LTE - This function enables tight interworking between NR and evolved E-UTRA by means of data flow aggregation. This function includes at least dual connectivity. Interworking with evolved E-UTRA is supported for collocated and non-collocated site deployments. - Multi-connectivity - This function provides means for connectivity between an New RAN node and multiple New RAN nodes by means of data flow aggregation. - evolved E-UTRA-NR handover through a New RAN interface - This function provides means for evolved E-UTRA-NR handover via the direct interface between an eLTE eNB and a NR BS. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		New RAN may also include other functions: - Contacting UEs in inactive mode (feasibility of UE Inactive mode to be further studied and coordinated with RAN2) - In the inactive mode, the UE context is stored in RAN and UP data is buffered in RAN. - Direct services support (further study related with D2D, coordinate with RAN1, RAN2) - This function provides communication whereby UEs can communicate with each other directly - Interworking with non-3GPP systems - This function provides interworking between NR and Non-3GPP RAT (e.g. WLAN). - evolved E-UTRA/E-UTRA - NR handover via CN - This function provides means for evolved E-UTRA/E-UTRA - NR handover via CN. Note: Support of the E-UTRA - NR HO via CN function depends on progress in SA2. When discussing solutions to support this function, RAN3 needs to consider factors such as adaptation of the source RAN/CN to the target RAN/CN - evolved E-UTRAN-NR inactive mode mobility using a direct interface between an eLTE eNB and an NR BS. - This function provide means for UE mobility in a RAN controlled inactive mode between NR and evolved E-UTRAN using a direct interface between an eLTE eNB and an NR BS for context fetching and paging. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.1.2.2 Procedural aspects The procedures defined under section 10.1.2.8 (Dual Connectivity operation) in TS 36.300 [12] are listed below. In this list, LTE eNB and gNB connected via Xx are considered to have the role similar to MeNB (or eNB without DC) and SeNB, respectively. The DC procedures defined in TS 36.423 [13] should be used as baseline. - SeNB Addition - SeNB Modification (MeNB initiated SeNB Modification) - SeNB Modification (SeNB initiated SeNB Modification) - Intra-MeNB handover involving SCG change - SeNB Release (MeNB initiated SeNB Release) - SeNB Release (SeNB initiated SeNB Release) - Change of SeNB - MeNB to eNB Change - SCG change - eNB to MeNB change - Inter-MeNB handover without SeNB change TR 38.801 V0.4.0 at 21.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.2.1.2 Inter-RAT handover with LTE There are three inter-RAT handover with LTE scenarios as shown in Figure 7.2.1.2-1. Figure 7.2.1.2-1: Inter-RAT handover with LTE scenarios NOTE 1: The interface between EPC and 5G CN is pending to SA2. TR 38.801 V0.4.0 at 22. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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[c]	wherein the handover request message includes network slice information; and	At least under Pegasus’s apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the handover request message includes network slice information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		Selection of RAN part of the network slice - RAN shall support the selection of the RAN part of the network slice, by a slice ID provided by the UE which unambiguously identifies one of the pre-configured network slices in the PLMN. TR 38.801 V0.4.0 at 22. RAN selection of CN entity - RAN shall support initial selection of the CN entity for initial routing of uplink messages based on received slice ID and a mapping in the RAN node (CN entity, slices supported). If no slice ID is received, the RAN selects the CN entity based on NNSF like function, e.g. UE temporary ID. Resource isolation between slices - RAN shall support resource isolation between slices. RAN resource isolation may be achieved by means of RRM policies and protection mechanisms that should avoid that shortage of shared resources in one slice breaks the service level agreement for another slice. It should be possible to fully dedicate RAN resources to a certain slice TR 38.801 V0.4.0 at 24.

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		9.2.1 Solution 1 Editor's note: this section presents a RAN solution for network slice selection and CN entity selection which is based on the solution described in section 6.1.2 of TR 23.799 [6]. This solution enables support of multiple slices simultaneously supported by a UE. In this solution the Network Slice and the CN entity are selected based on a Multi-Dimensional Descriptor called MDD as described in TR 23.799 [6]. In this case the CN entity is a common control plane entity in NG Core (CCNF) – common to all supported slices - as described in section 6.1.2 of TR 23.799 [6]. The RAN selection of the Network slice and the selection of the appropriate CCNF can be partitioned into the following five cases. <u>Selection case 1: no MDD, no or invalid Temp ID</u> <pre> sequenceDiagram participant UE participant gNB as gNB CN selection default/load balancing participant DefaultCCNF as Default CCNF participant ServingCCNF as serving CCNF UE->>gNB: RRC conn Request (PLMN, no or invalid Temp ID) gNB->>DefaultCCNF: NG1 UL message (PLMN) gNB->>ServingCCNF: NG1 DL message (MDD*) ServingCCNF-->>UE: NAS DL message (Temp ID, MDD*) UE-->>gNB: NAS UL message () gNB-->>UE: RRC Conn Response () </pre> TR 38.801 V0.4.0 at 24.

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		9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

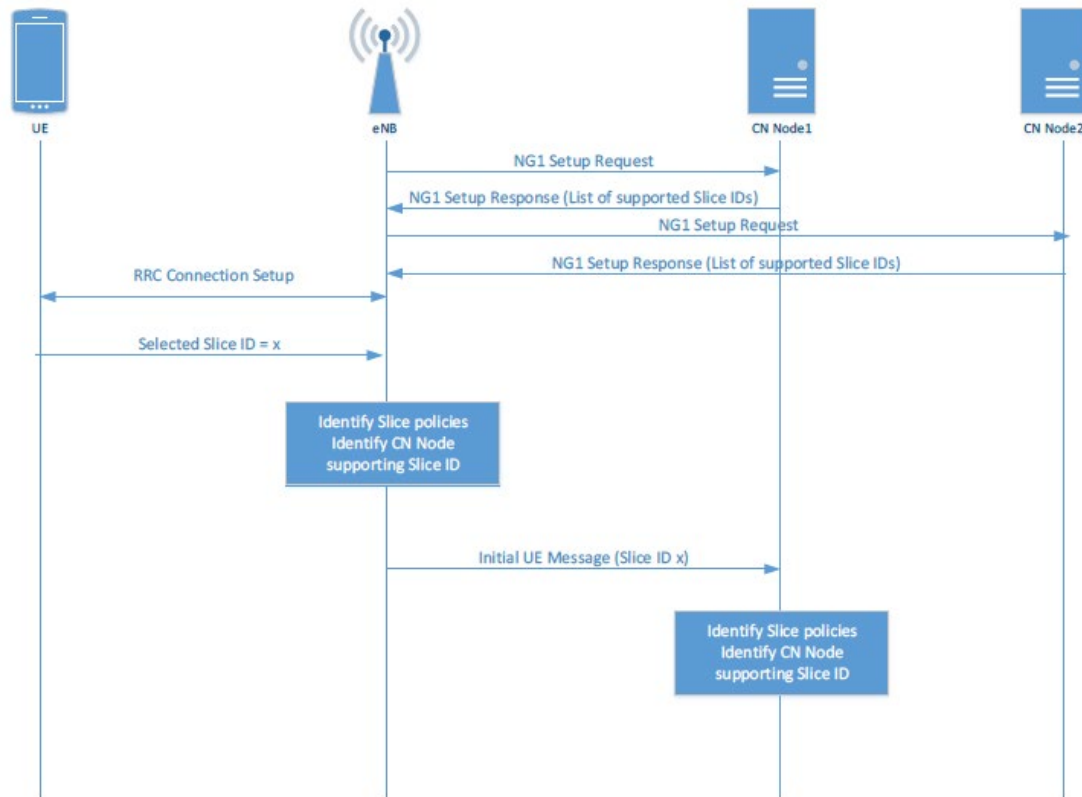


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-2.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

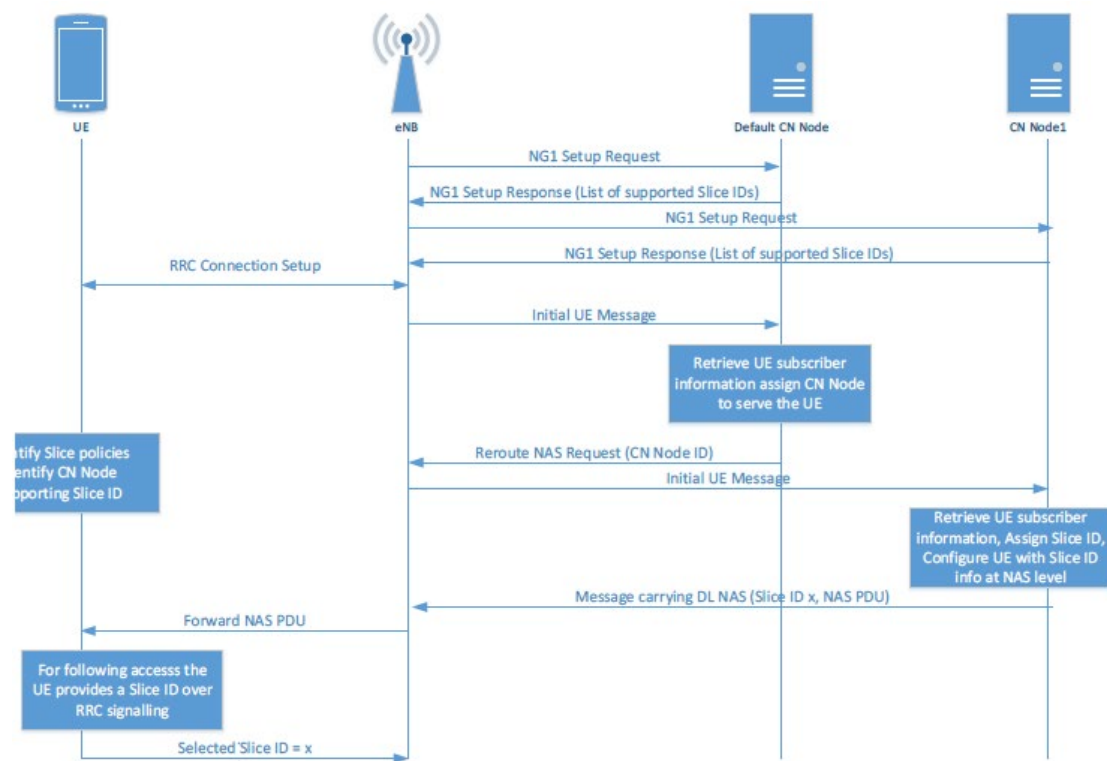


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN
 TR 38.801 V0.4.0 at Fig. 9.2.1-2.

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		Functions specific for New RAN: - Network Slice support - This function provides the capability for NR RAN to support network slicing - Tight Interworking with LTE - This function enables tight interworking between NR and evolved E-UTRA by means of data flow aggregation. This function includes at least dual connectivity. Interworking with evolved E-UTRA is supported for collocated and non-collocated site deployments. - Multi-connectivity - This function provides means for connectivity between an New RAN node and multiple New RAN nodes by means of data flow aggregation. - evolved E-UTRA-NR handover through a New RAN interface - This function provides means for evolved E-UTRA-NR handover via the direct interface between an eLTE eNB and a NR BS. TR 38.801 V0.4.0 at 11.

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		New RAN may also include other functions: - Contacting UEs in inactive mode (feasibility of UE Inactive mode to be further studied and coordinated with RAN2) - In the inactive mode, the UE context is stored in RAN and UP data is buffered in RAN. - Direct services support (further study related with D2D, coordinate with RAN1, RAN2) - This function provides communication whereby UEs can communicate with each other directly - Interworking with non-3GPP systems - This function provides interworking between NR and Non-3GPP RAT (e.g. WLAN). - evolved E-UTRA/E-UTRA - NR handover via CN - This function provides means for evolved E-UTRA/E-UTRA - NR handover via CN. Note: Support of the E-UTRA - NR HO via CN function depends on progress in SA2. When discussing solutions to support this function, RAN3 needs to consider factors such as adaptation of the source RAN/CN to the target RAN/CN - evolved E-UTRAN-NR inactive mode mobility using a direct interface between an eLTE eNB and an NR BS. - This function provide means for UE mobility in a RAN controlled inactive mode between NR and evolved E-UTRAN using a direct interface between an eLTE eNB and an NR BS for context fetching and paging. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.1.2.2 Procedural aspects The procedures defined under section 10.1.2.8 (Dual Connectivity operation) in TS 36.300 [12] are listed below. In this list, LTE eNB and gNB connected via Xx are considered to have the role similar to MeNB (or eNB without DC) and SeNB, respectively. The DC procedures defined in TS 36.423 [13] should be used as baseline. - SeNB Addition - SeNB Modification (MeNB initiated SeNB Modification) - SeNB Modification (SeNB initiated SeNB Modification) - Intra-MeNB handover involving SCG change - SeNB Release (MeNB initiated SeNB Release) - SeNB Release (SeNB initiated SeNB Release) - Change of SeNB - MeNB to eNB Change - SCG change - eNB to MeNB change - Inter-MeNB handover without SeNB change TR 38.801 V0.4.0 at 21.

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Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.2.1.2 Inter-RAT handover with LTE There are three inter-RAT handover with LTE scenarios as shown in Figure 7.2.1.2-1. Figure 7.2.1.2-1: Inter-RAT handover with LTE scenarios NOTE 1: The interface between EPC and 5G CN is pending to SA2. TR 38.801 V0.4.0 at 22. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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]	receiving, by the source BS from the target BS, a handover request confirmation message	At least under Pegasus’s apparent infringement theory, TR 38.801 V0.4.0 discloses receiving, by the source BS from the target BS, a handover request confirmation message in response to the handover request message. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
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	in response to the handover request message,	Functions specific for New RAN: - Network Slice support - This function provides the capability for NR RAN to support network slicing - Tight Interworking with LTE - This function enables tight interworking between NR and evolved E-UTRA by means of data flow aggregation. This function includes at least dual connectivity. Interworking with evolved E-UTRA is supported for collocated and non-collocated site deployments. - Multi-connectivity - This function provides means for connectivity between an New RAN node and multiple New RAN nodes by means of data flow aggregation. - evolved E-UTRA-NR handover through a New RAN interface - This function provides means for evolved E-UTRA-NR handover via the direct interface between an eLTE eNB and a NR BS. TR 38.801 V0.4.0 at 11.

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		New RAN may also include other functions: - Contacting UEs in inactive mode (feasibility of UE Inactive mode to be further studied and coordinated with RAN2) - In the inactive mode, the UE context is stored in RAN and UP data is buffered in RAN. - Direct services support (further study related with D2D, coordinate with RAN1, RAN2) - This function provides communication whereby UEs can communicate with each other directly - Interworking with non-3GPP systems - This function provides interworking between NR and Non-3GPP RAT (e.g. WLAN). - evolved E-UTRA/E-UTRA - NR handover via CN - This function provides means for evolved E-UTRA/E-UTRA - NR handover via CN. Note: Support of the E-UTRA - NR HO via CN function depends on progress in SA2. When discussing solutions to support this function, RAN3 needs to consider factors such as adaptation of the source RAN/CN to the target RAN/CN - evolved E-UTRAN-NR inactive mode mobility using a direct interface between an eLTE eNB and an NR BS. - This function provide means for UE mobility in a RAN controlled inactive mode between NR and evolved E-UTRAN using a direct interface between an eLTE eNB and an NR BS for context fetching and paging. TR 38.801 V0.4.0 at 11.

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		7.1.2.2 Procedural aspects The procedures defined under section 10.1.2.8 (Dual Connectivity operation) in TS 36.300 [12] are listed below. In this list, LTE eNB and gNB connected via Xx are considered to have the role similar to MeNB (or eNB without DC) and SeNB, respectively. The DC procedures defined in TS 36.423 [13] should be used as baseline. - SeNB Addition - SeNB Modification (MeNB initiated SeNB Modification) - SeNB Modification (SeNB initiated SeNB Modification) - Intra-MeNB handover involving SCG change - SeNB Release (MeNB initiated SeNB Release) - SeNB Release (SeNB initiated SeNB Release) - Change of SeNB - MeNB to eNB Change - SCG change - eNB to MeNB change - Inter-MeNB handover without SeNB change TR 38.801 V0.4.0 at 21.

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Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.2.1.2 Inter-RAT handover with LTE There are three inter-RAT handover with LTE scenarios as shown in Figure 7.2.1.2-1. Scenario 1: inter-RAT handover based on CN interface Scenario 2: inter-RAT handover based on eLTE eNB and 5G CN interface Scenario 3: inter-RAT handover based on eLTE eNB and NR BS interface Figure 7.2.1.2-1: Inter-RAT handover with LTE scenarios NOTE 1: The interface between EPC and 5G CN is pending to SA2. TR 38.801 V0.4.0 at 22. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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, if one or more protocol data unit (PDU) sessions are associated with one or more network slices	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein, if one or more protocol data unit (PDU) sessions are associated with one or more network slices that are not supported by the target BS, the handover request confirmation message includes information for indicating a rejection of the one or

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
	that are not supported by the target BS, the handover request confirmation message includes information for indicating a rejection of the one or more PDU sessions by the target BS.	more PDU sessions by the target BS. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: Selection of RAN part of the network slice - RAN shall support the selection of the RAN part of the network slice, by a slice ID provided by the UE which unambiguously identifies one of the pre-configured network slices in the PLMN. TR 38.801 V0.4.0 at 22. RAN selection of CN entity - RAN shall support initial selection of the CN entity for initial routing of uplink messages based on received slice ID and a mapping in the RAN node (CN entity, slices supported). If no slice ID is received, the RAN selects the CN entity based on NNSF like function, e.g. UE temporary ID. Resource isolation between slices - RAN shall support resource isolation between slices. RAN resource isolation may be achieved by means of RRM policies and protection mechanisms that should avoid that shortage of shared resources in one slice breaks the service level agreement for another slice. It should be possible to fully dedicate RAN resources to a certain slice TR 38.801 V0.4.0 at 24.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		9.2.1 Solution 1 Editor's note: this section presents a RAN solution for network slice selection and CN entity selection which is based on the solution described in section 6.1.2 of TR 23.799 [6]. This solution enables support of multiple slices simultaneously supported by a UE. In this solution the Network Slice and the CN entity are selected based on a Multi-Dimensional Descriptor called MDD as described in TR 23.799 [6]. In this case the CN entity is a common control plane entity in NG Core (CCNF) – common to all supported slices - as described in section 6.1.2 of TR 23.799 [6]. The RAN selection of the Network slice and the selection of the appropriate CCNF can be partitioned into the following five cases. <u>Selection case 1: no MDD, no or invalid Temp ID</u> <pre> sequenceDiagram participant UE participant gNB as gNB CN selection default/load balancing participant DefaultCCNF as Default CCNF participant ServingCCNF as serving CCNF UE->>gNB: RRC conn Request (PLMN, no or invalid Temp ID) gNB->>DefaultCCNF: NG1 UL message (PLMN) DefaultCCNF->>ServingCCNF: NG1 DL message (MDD*) ServingCCNF->>gNB: NG1 DL message (MDD*) gNB->>UE: RRC Conn Response () UE->>gNB: NAS UL message () gNB->>UE: NAS DL message (Temp ID, MDD*) </pre> TR 38.801 V0.4.0 at 24.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

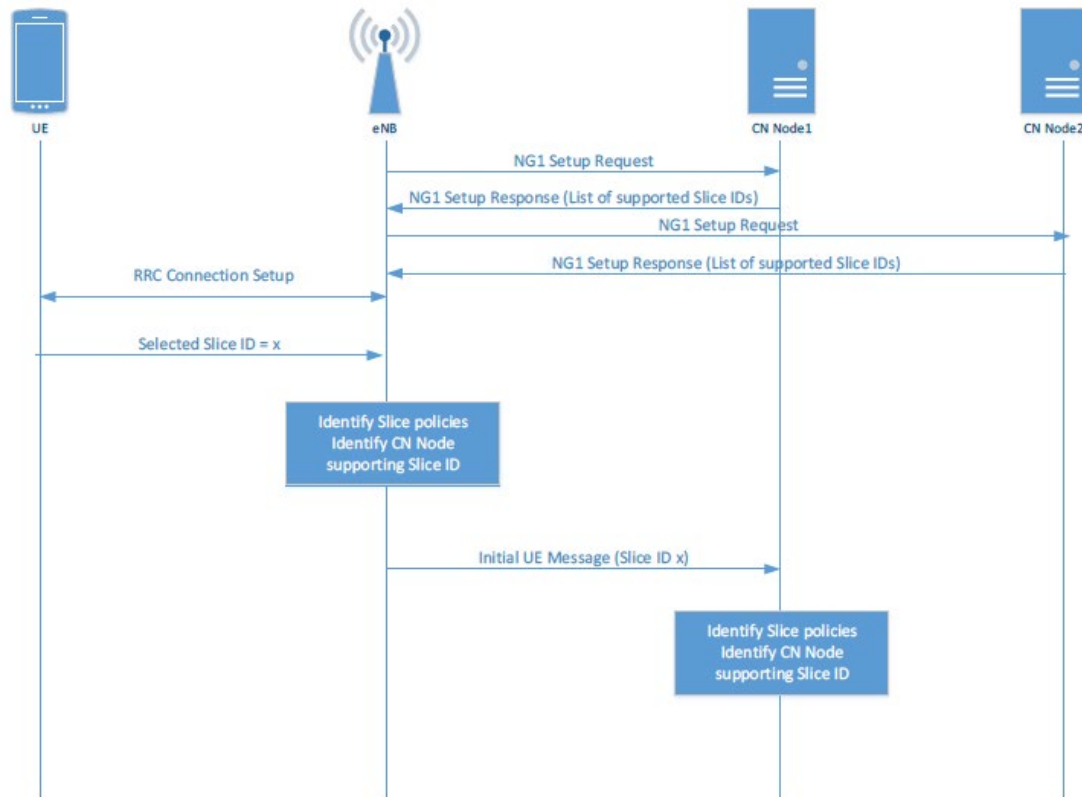


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-2.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

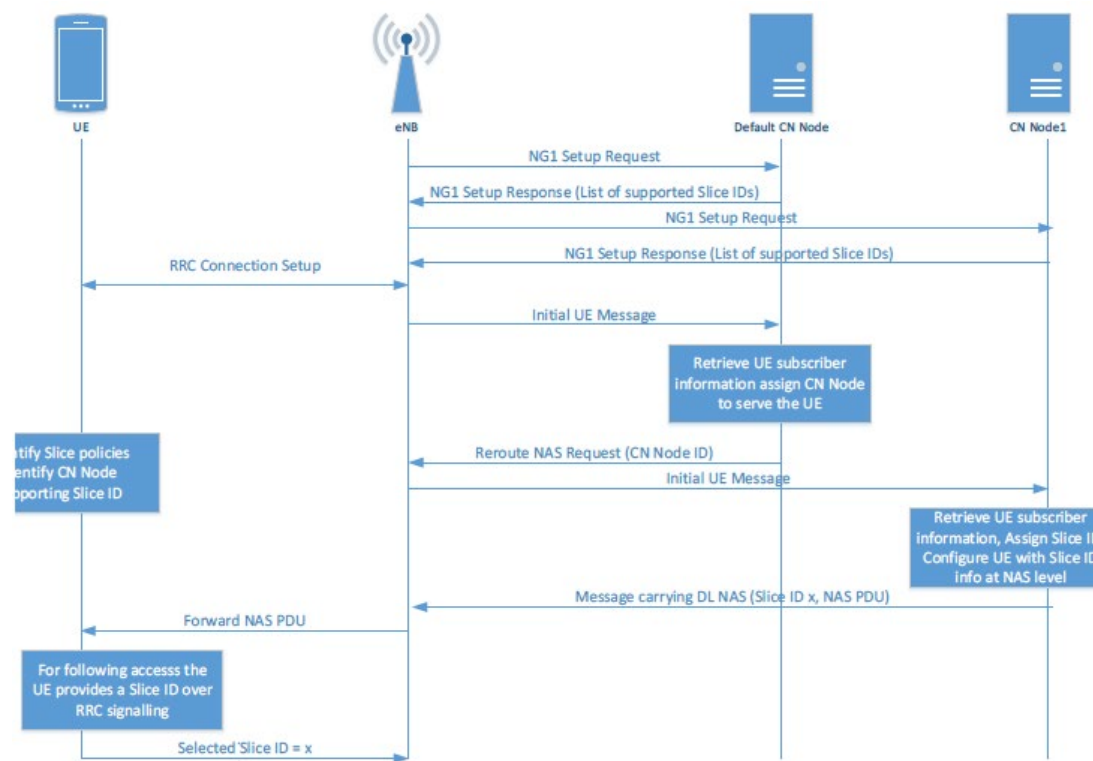


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN
TR 38.801 V0.4.0 at Fig. 9.2.1-2.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		Functions specific for New RAN: - Network Slice support - This function provides the capability for NR RAN to support network slicing - Tight Interworking with LTE - This function enables tight interworking between NR and evolved E-UTRA by means of data flow aggregation. This function includes at least dual connectivity. Interworking with evolved E-UTRA is supported for collocated and non-collocated site deployments. - Multi-connectivity - This function provides means for connectivity between an New RAN node and multiple New RAN nodes by means of data flow aggregation. - evolved E-UTRA-NR handover through a New RAN interface - This function provides means for evolved E-UTRA-NR handover via the direct interface between an eLTE eNB and a NR BS. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		New RAN may also include other functions: - Contacting UEs in inactive mode (feasibility of UE Inactive mode to be further studied and coordinated with RAN2) - In the inactive mode, the UE context is stored in RAN and UP data is buffered in RAN. - Direct services support (further study related with D2D, coordinate with RAN1, RAN2) - This function provides communication whereby UEs can communicate with each other directly - Interworking with non-3GPP systems - This function provides interworking between NR and Non-3GPP RAT (e.g. WLAN). - evolved E-UTRA/E-UTRA - NR handover via CN - This function provides means for evolved E-UTRA/E-UTRA - NR handover via CN. Note: Support of the E-UTRA - NR HO via CN function depends on progress in SA2. When discussing solutions to support this function, RAN3 needs to consider factors such as adaptation of the source RAN/CN to the target RAN/CN - evolved E-UTRAN-NR inactive mode mobility using a direct interface between an eLTE eNB and an NR BS. - This function provide means for UE mobility in a RAN controlled inactive mode between NR and evolved E-UTRAN using a direct interface between an eLTE eNB and an NR BS for context fetching and paging. TR 38.801 V0.4.0 at 11.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.1.2.2 Procedural aspects The procedures defined under section 10.1.2.8 (Dual Connectivity operation) in TS 36.300 [12] are listed below. In this list, LTE eNB and gNB connected via Xx are considered to have the role similar to MeNB (or eNB without DC) and SeNB, respectively. The DC procedures defined in TS 36.423 [13] should be used as baseline. - SeNB Addition - SeNB Modification (MeNB initiated SeNB Modification) - SeNB Modification (SeNB initiated SeNB Modification) - Intra-MeNB handover involving SCG change - SeNB Release (MeNB initiated SeNB Release) - SeNB Release (SeNB initiated SeNB Release) - Change of SeNB - MeNB to eNB Change - SCG change - eNB to MeNB change - Inter-MeNB handover without SeNB change TR 38.801 V0.4.0 at 21.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		7.2.1.2 Inter-RAT handover with LTE There are three inter-RAT handover with LTE scenarios as shown in Figure 7.2.1.2-1. Scenario 1: inter-RAT handover based on CN interface Scenario 2: inter-RAT handover based on eLTE eNB and 5G CN interface Scenario 3: inter-RAT handover based on eLTE eNB and NR BS interface Figure 7.2.1.2-1: Inter-RAT handover with LTE scenarios NOTE 1: The interface between EPC and 5G CN is pending to SA2. TR 38.801 V0.4.0 at 22. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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 2

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
2	The method according to claim 1, further comprising: receiving, by the source BS from a user equipment (UE), a non-access stratum (NAS) message including network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses receiving, by the source BS from a user equipment (UE), a non-access stratum (NAS) message including network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: 9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

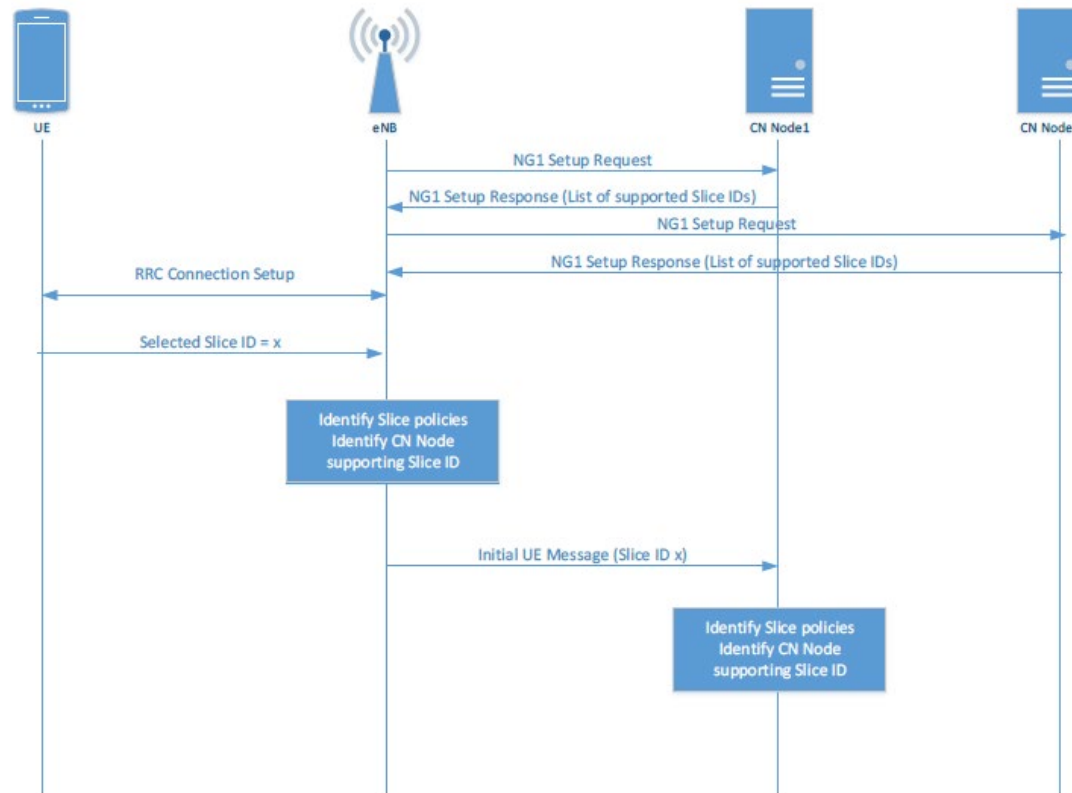


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-1.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		The second case, where the slice ID is not initially provided by the UE and it is configured by the CN to the UE, consists of the following general steps: - The UE presents a NAS Service Request with no specific Slice ID. - The serving RAN routes the NAS PDU to a default CN Node. - The default CN node analyses the NAS request and retrieves UE subscriber information. Based on the UE subscriber information and NAS Service Request the default CN Node reroutes the request to a different CN Node. The latter could be achieved by reusing procedures similar to existing S1: Reroute NAS Request. - The new CN Node (reached via reroute) responds to the RAN with an assigned Slice ID for the UE and it responds to the UE with a NAS PDU in which usable Slice IDs are provided. - From this moment onwards the UE will present to the RAN a slice ID that intends to access at RRC connection establishment. Figure 9.2.1-2 summarises the steps described in the case of Slice ID configured by the CN to the UE. TR 38.801 V0.4.0 at 27.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

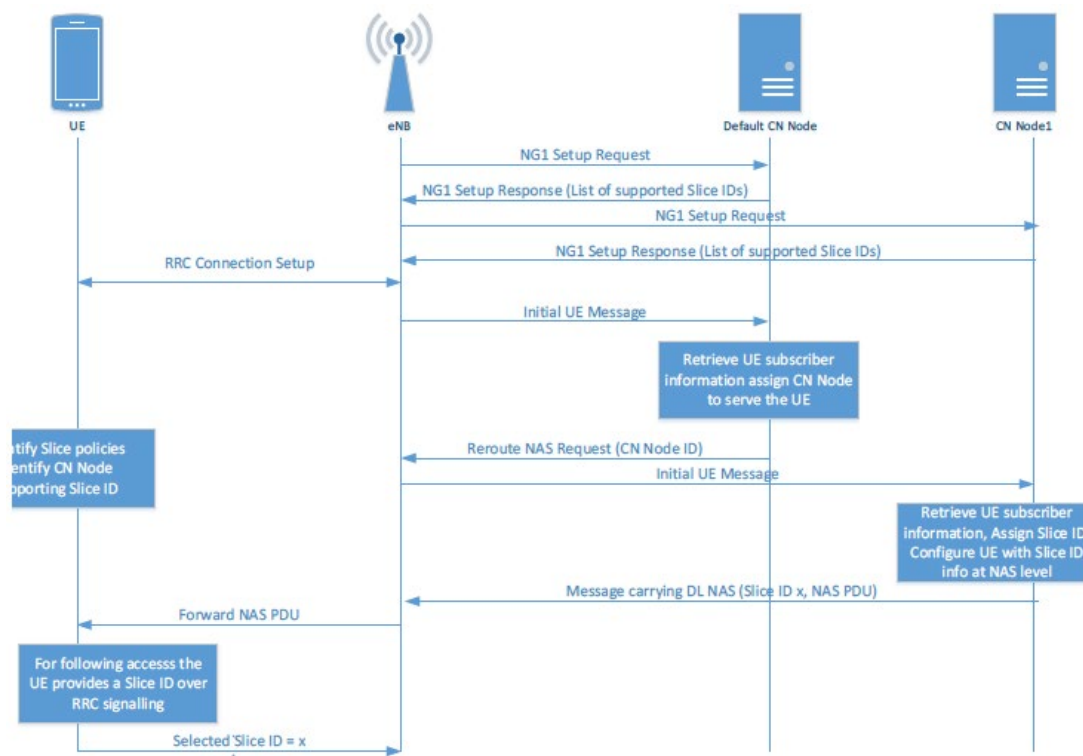


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN

TR 38.801 V0.4.0 at Fig. 9.2.1-1.

In both mechanisms described above it is assumed that a UE can only access in parallel the network slices supported by the CN node serving it. Namely, a UE cannot access multiple slices served by different CN nodes at the same time.

TR 38.801 V0.4.0 at 28.

To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious,

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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. Claim 3

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
3	The method according to claim 2, further comprising: receiving, by the source BS from a core network entity, the network slice information, wherein the network slice information is configured by the network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses receiving, by the source BS from a core network entity, the network slice information, wherein the network slice information is configured by the network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

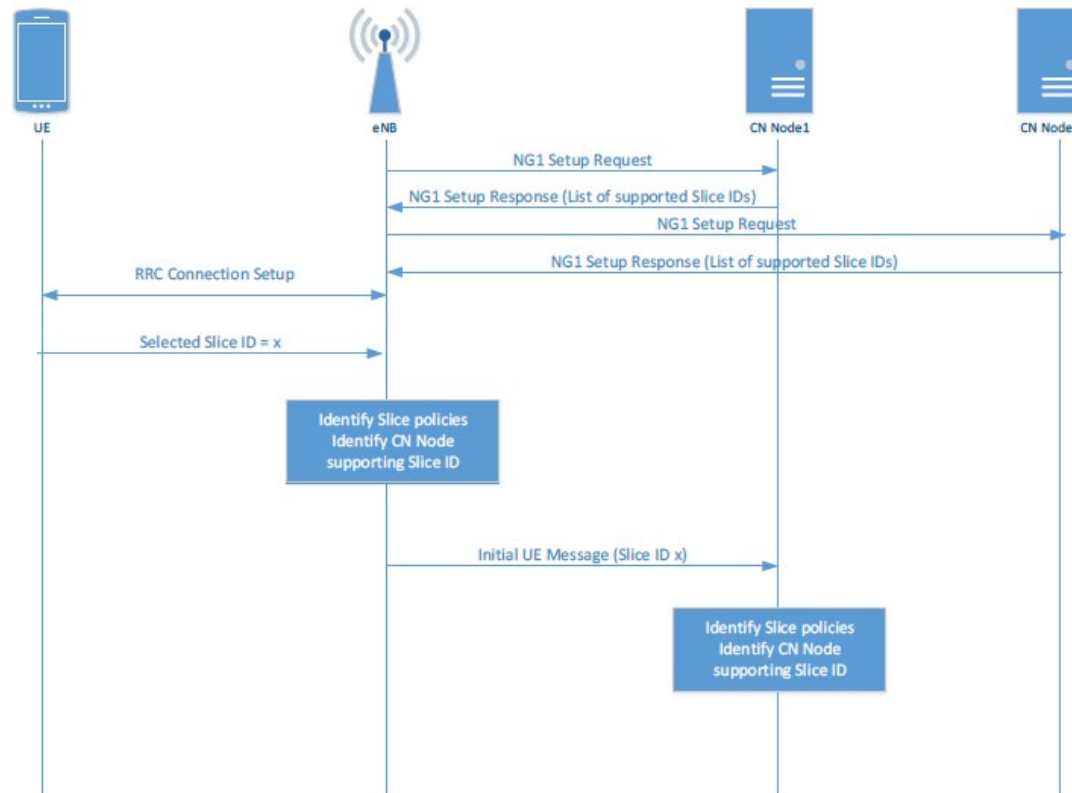


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-1.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		The second case, where the slice ID is not initially provided by the UE and it is configured by the CN to the UE, consists of the following general steps: - The UE presents a NAS Service Request with no specific Slice ID. - The serving RAN routes the NAS PDU to a default CN Node. - The default CN node analyses the NAS request and retrieves UE subscriber information. Based on the UE subscriber information and NAS Service Request the default CN Node reroutes the request to a different CN Node. The latter could be achieved by reusing procedures similar to existing S1: Reroute NAS Request. - The new CN Node (reached via reroute) responds to the RAN with an assigned Slice ID for the UE and it responds to the UE with a NAS PDU in which usable Slice IDs are provided. - From this moment onwards the UE will present to the RAN a slice ID that intends to access at RRC connection establishment. Figure 9.2.1-2 summarises the steps described in the case of Slice ID configured by the CN to the UE. TR 38.801 V0.4.0 at 27.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

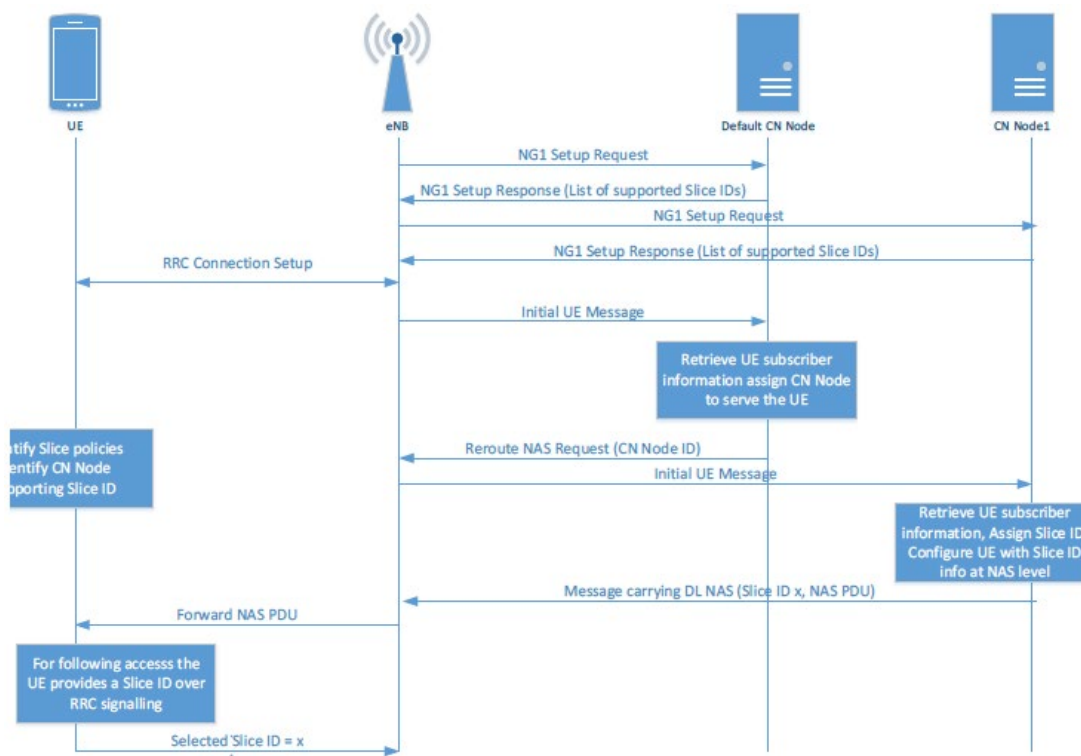


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN

TR 38.801 V0.4.0 at Fig. 9.2.1-1.

In both mechanisms described above it is assumed that a UE can only access in parallel the network slices supported by the CN node serving it. Namely, a UE cannot access multiple slices served by different CN nodes at the same time.

TR 38.801 V0.4.0 at 28.

To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious,

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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. Claim 4

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
4	The method according to claim 2, wherein the NAS message including the network slice request information is included in a radio resource control (RRC) connection setup completion message.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the NAS message including the network slice request information is included in a radio resource control (RRC) connection setup completion message. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

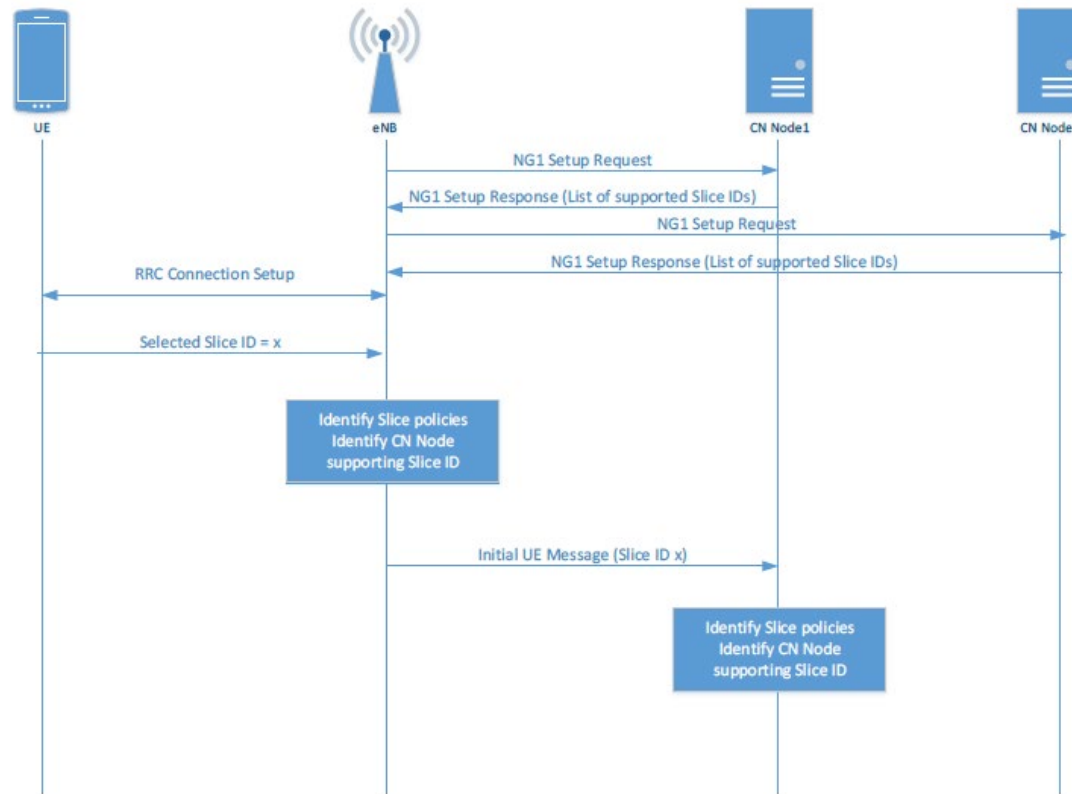


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-1.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		The second case, where the slice ID is not initially provided by the UE and it is configured by the CN to the UE, consists of the following general steps: - The UE presents a NAS Service Request with no specific Slice ID. - The serving RAN routes the NAS PDU to a default CN Node. - The default CN node analyses the NAS request and retrieves UE subscriber information. Based on the UE subscriber information and NAS Service Request the default CN Node reroutes the request to a different CN Node. The latter could be achieved by reusing procedures similar to existing S1: Reroute NAS Request. - The new CN Node (reached via reroute) responds to the RAN with an assigned Slice ID for the UE and it responds to the UE with a NAS PDU in which usable Slice IDs are provided. - From this moment onwards the UE will present to the RAN a slice ID that intends to access at RRC connection establishment. Figure 9.2.1-2 summarises the steps described in the case of Slice ID configured by the CN to the UE. TR 38.801 V0.4.0 at 27.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

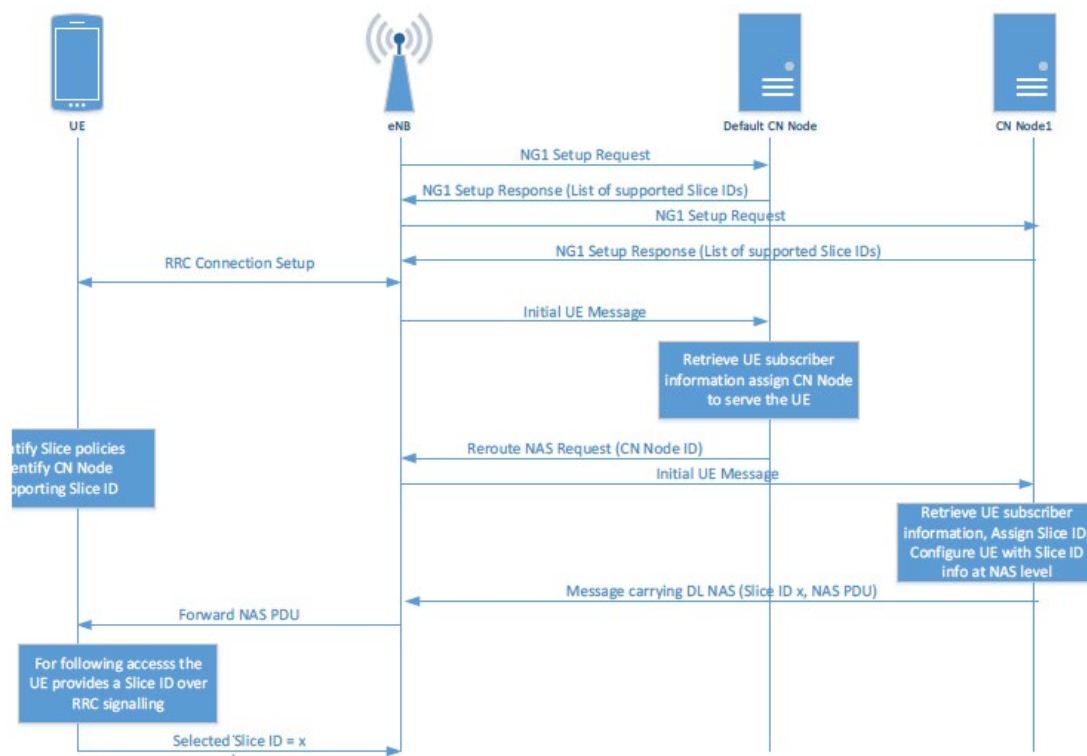


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN

TR 38.801 V0.4.0 at Fig. 9.2.1-1.

In both mechanisms described above it is assumed that a UE can only access in parallel the network slices supported by the CN node serving it. Namely, a UE cannot access multiple slices served by different CN nodes at the same time.

TR 38.801 V0.4.0 at 28.

To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious,

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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. Claim 5

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
5	The method according to claim 3, wherein the network slice information is configured by the core network entity based on the network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses receiving, by the source BS from a core network entity, the network slice information, wherein the network slice information is configured by the core network entity based on the network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

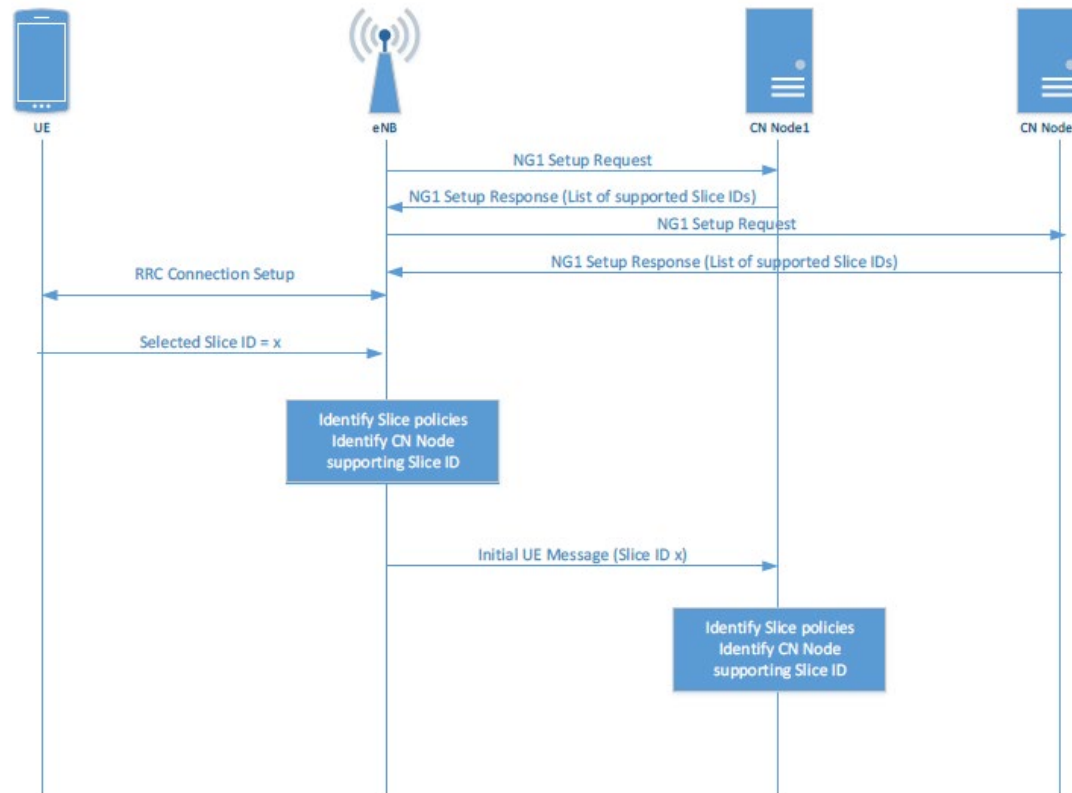


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-1.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		The second case, where the slice ID is not initially provided by the UE and it is configured by the CN to the UE, consists of the following general steps: - The UE presents a NAS Service Request with no specific Slice ID. - The serving RAN routes the NAS PDU to a default CN Node. - The default CN node analyses the NAS request and retrieves UE subscriber information. Based on the UE subscriber information and NAS Service Request the default CN Node reroutes the request to a different CN Node. The latter could be achieved by reusing procedures similar to existing S1: Reroute NAS Request. - The new CN Node (reached via reroute) responds to the RAN with an assigned Slice ID for the UE and it responds to the UE with a NAS PDU in which usable Slice IDs are provided. - From this moment onwards the UE will present to the RAN a slice ID that intends to access at RRC connection establishment. Figure 9.2.1-2 summarises the steps described in the case of Slice ID configured by the CN to the UE. TR 38.801 V0.4.0 at 27.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

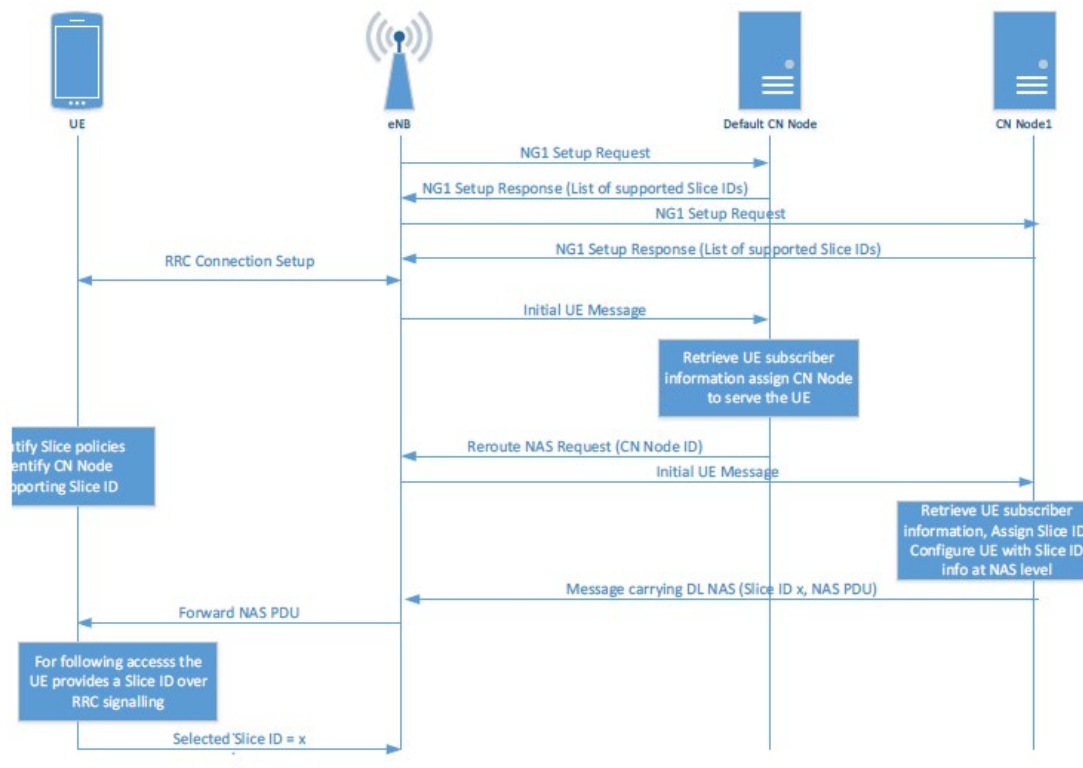


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN

TR 38.801 V0.4.0 at Fig. 9.2.1-1.

In both mechanisms described above it is assumed that a UE can only access in parallel the network slices supported by the CN node serving it. Namely, a UE cannot access multiple slices served by different CN nodes at the same time.

TR 38.801 V0.4.0 at 28.

To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious,

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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. Claim 6

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
6	The method according to claim 5, wherein the transmission of the handover request message is performed through a direct interface associated with the target base station.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the transmission of the handover request message is performed through a direct interface associated with the target base station. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: 6.3.3.1 Xn Interface The interface allowing to interconnect two gNBs or one gNB and one eLTE eNB with each other is referred to as the Xn interface. Editor's note: The applicability of this interface for a connection between two eLTE eNBs is FFS. TR 38.801 V0.4.0 at 19. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		combine TR 38.801 V0.4.0 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. Claim 7

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
7[pre]	A controller for transmitting and receiving data, the controller comprising:	To the extent the preamble is limiting, at least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses a controller for transmitting and receiving data. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[pre]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
7[a]	a processor performs:	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses a processor. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: 9.2.2 Solution 2 Network Slice selection may be realised in at least two mechanisms. One possible way is to configure the UE with a list of slice IDs to which it is allowed to access. Another way is to let the CN notify the UE of the Slice IDs it can access and let the UE rely on such information onwards. The first case of UE configured Slice ID is made of the following general steps: - The UE will be configured with Slice IDs and with criteria to present the right Slice ID to the RAN. - When the UE requests to access the RAN it will present a Slice ID as per criteria previously configured. - By receiving the Slice ID, the RAN shall be able to - Identify the policies that apply to the selected slice and assign RAN resources accordingly. - Identify the CN node that supports the slice ID presented by the UE. In order to achieve the CN node selection the RAN would need to be informed about the slice IDs supported by connected CN nodes. This can be achieved by letting RAN and CN exchange information on supported slice IDs at RAN-CN interface setup. Figure 9.2.1-1 summarises the steps described in the case of Slice ID provided by the UE. TR 38.801 V0.4.0 at 26.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

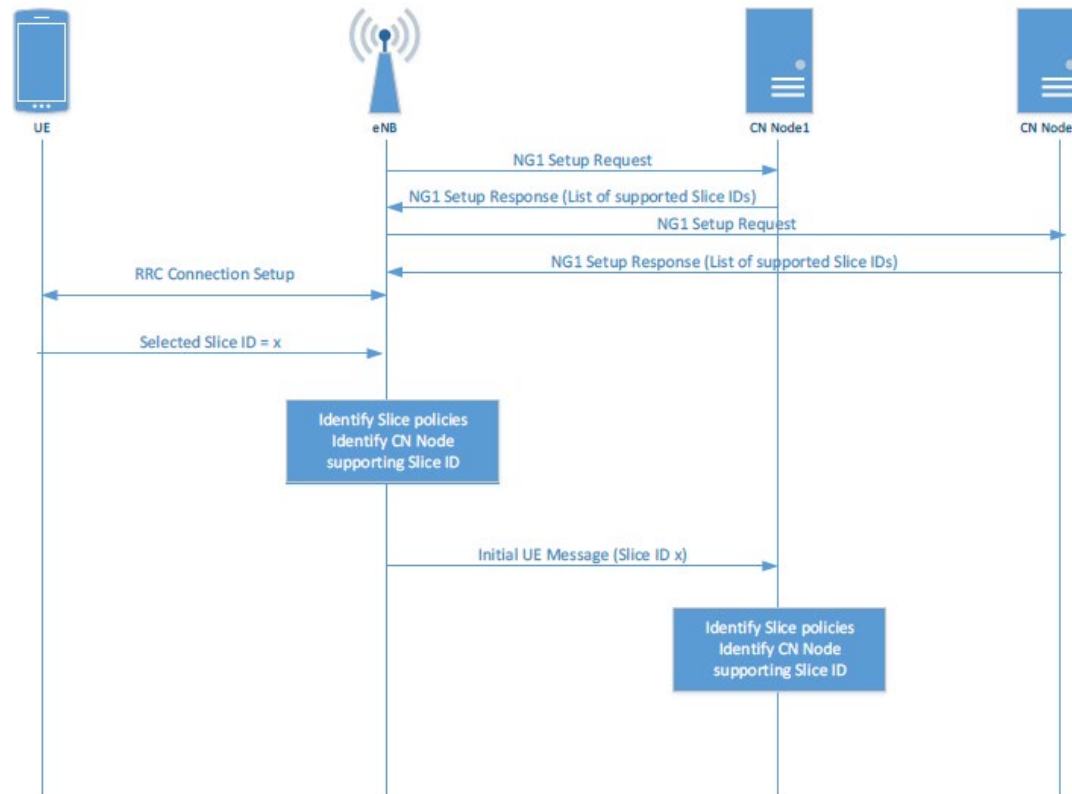


Figure 9.2.1-1: Slice selection when Slice ID is provided by the UE to RAN
TR 38.801 V0.4.0 at Fig. 9.2.1-1.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		The second case, where the slice ID is not initially provided by the UE and it is configured by the CN to the UE, consists of the following general steps: - The UE presents a NAS Service Request with no specific Slice ID. - The serving RAN routes the NAS PDU to a default CN Node. - The default CN node analyses the NAS request and retrieves UE subscriber information. Based on the UE subscriber information and NAS Service Request the default CN Node reroutes the request to a different CN Node. The latter could be achieved by reusing procedures similar to existing S1: Reroute NAS Request. - The new CN Node (reached via reroute) responds to the RAN with an assigned Slice ID for the UE and it responds to the UE with a NAS PDU in which usable Slice IDs are provided. - From this moment onwards the UE will present to the RAN a slice ID that intends to access at RRC connection establishment. Figure 9.2.1-2 summarises the steps described in the case of Slice ID configured by the CN to the UE. TR 38.801 V0.4.0 at 27.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0

Claim Language

Exemplary Citations to TR 38.801 V0.4.0

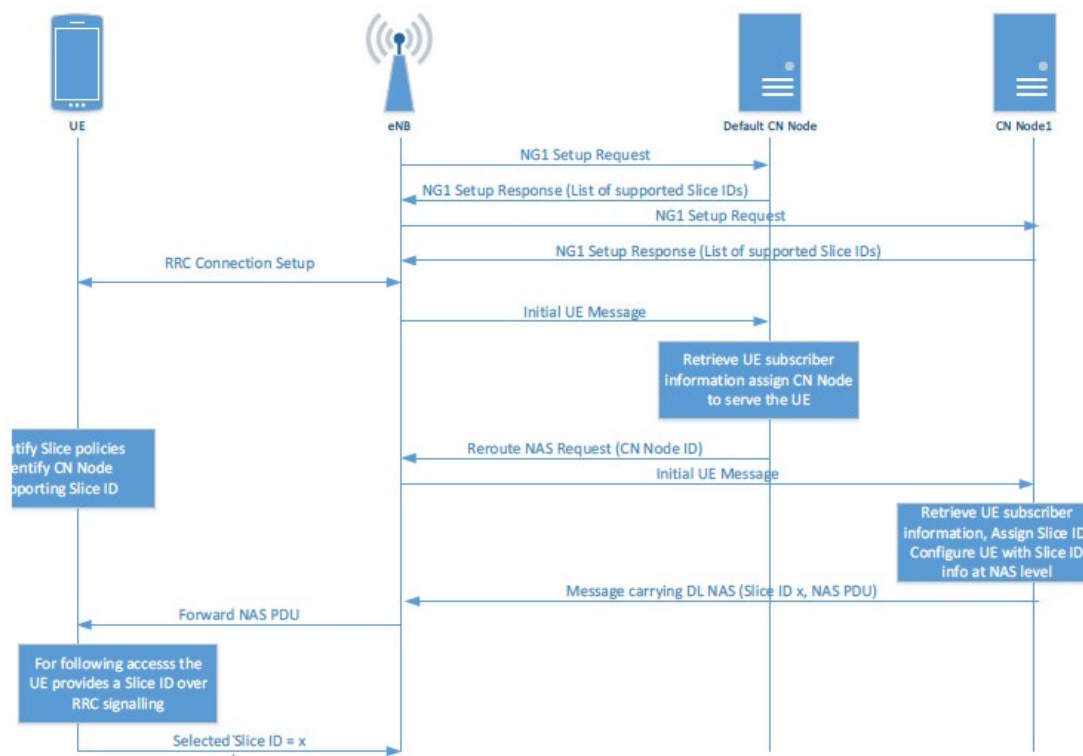


Figure 9.2.1-2: Slice selection when Slice ID is provided by the CN

TR 38.801 V0.4.0 at Fig. 9.2.1-1.

In both mechanisms described above it is assumed that a UE can only access in parallel the network slices supported by the CN node serving it. Namely, a UE cannot access multiple slices served by different CN nodes at the same time.

TR 38.801 V0.4.0 at 28.

To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious,

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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[b]	to decide whether to perform a handover,	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses to decide whether to perform a handover. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[a]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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]	to transmit a handover request message when it is decided to perform the handover,	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses to transmit a handover request message when it is decided to perform the handover. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		<i>See</i> limitation 1[b]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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 handover request message includes network slice information; and	At least under Pegasus’s apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the handover request message includes network slice information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[c]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
7[e]	to receive a handover request confirmation message in response to the handover request message,	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses to receive a handover request confirmation message in response to the handover request message. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[d]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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[f]	wherein, if one or more protocol data unit (PDU) sessions are associated with one or more network slices that are not supported by a target BS, the handover request confirmation message includes information for indicating a rejection of the one or more PDU sessions by the target BS.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein, if one or more protocol data unit (PDU) sessions are associated with one or more network slices that are not supported by a target BS, the handover request confirmation message includes information for indicating a rejection of the one or more PDU sessions by the target BS. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[e]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious, either alone, in combination with the knowledge of a person of ordinary skill in the

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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. Claim 8

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
8	The controller according to claim 7, wherein the processor further performs to receive a non-access stratum (NAS) message including network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 wherein the processor further performs to receive a non-access stratum (NAS) message including network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 2.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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. Claim 9

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
9	The controller according to claim 8, wherein the processor further performs to receive the network slice information from a core network, wherein the network slice information is configured by the network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the processor further performs to receive the network slice information from a core network, wherein the network slice information is configured by the network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 3.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

10. Claim 10

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
10	The controller according to claim 8, wherein the NAS message including the network	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the NAS message including the network slice request information is included in a radio resource control (RRC) connection setup completion message. For

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
	slice request information is included in a radio resource control (RRC) connection setup completion message.	example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 4.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

11. Claim 11

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
11	The controller according to claim 9, wherein the network slice information is configured by the core network entity based on the network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the network slice information is configured by the core network entity based on the network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 5.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

12. Claim 12

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
12	The controller according to claim 11, wherein the transmission of the handover request message is performed through a direct interface associated with the target base station.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the transmission of the handover request message is performed through a direct interface associated with the target base station. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 6.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		address the same known problems, according to known methods which would yield predictable results.

13. Claim 13

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
13[pre]	An apparatus for transmitting and receiving data, the apparatus comprising:	To the extent the preamble is limiting, at least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses an apparatus for transmitting and receiving data. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[pre]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.
13[a]	a controller configured to decide whether to perform a handover,	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses a controller configured to decide whether to perform a handover. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[a].

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.
13[b]	a transmitter configured to transmit a handover request message when it is decided to perform the handover,	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses a transmitter configured to transmit a handover request message when it is decided to perform the handover. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See limitation 1[b].</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
13[c]	wherein the handover request message includes network slice information; and	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the handover request message includes network slice information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[c]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.
13[d]	a receiver configured to receive a handover request confirmation message in response to the handover request message,	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses a receiver configured to receive a handover request confirmation message in response to the handover request message. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[d]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		combine TR 38.801 V0.4.0 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.
13[e]	wherein, if one or more protocol data unit (PDU) sessions are associated with one or more network slices that are not supported by a target BS, the handover request confirmation message includes information for indicating a rejection of the one or more PDU sessions by the target BS.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein, if one or more protocol data unit (PDU) sessions are associated with one or more network slices that are not supported by the target BS, the handover request confirmation message includes information for indicating a rejection of the one or more PDU sessions by the target BS. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See</i> limitation 1[e]. To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

14. Claim 14

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
14	The apparatus according to claim 13, wherein the processor further performs to receive a non-access stratum (NAS) message including network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the processor further performs to receive a non-access stratum (NAS) message including network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 2.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

15. Claim 15

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Claim Language		Exemplary Citations to TR 38.801 V0.4.0
15	The apparatus according to claim 14, wherein the processor further performs to receive the network slice information from a core	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the processor further performs to receive the network slice information from a core network, wherein the network slice information is configured by the network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations:

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Claim Language		Exemplary Citations to TR 38.801 V0.4.0
	network, wherein the network slice information is configured by the network slice request information.	<i>See claim 3.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.

16. Claim 16

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
16	The apparatus according to claim 14, wherein the NAS message including the network slice request information is included in a radio resource control (RRC) connection setup completion message.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the NAS message including the network slice request information is included in a radio resource control (RRC) connection setup completion message. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 4.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 renders it obvious,

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Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		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 TR 38.801 V0.4.0 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.

17. Claim 17

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
17	The apparatus according to claim 15, wherein the network slice information is configured by the core network entity based on the network slice request information.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the network slice information is configured by the core network entity based on the network slice request information. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 5.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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

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Claim Language		Exemplary Citations to TR 38.801 V0.4.0
		address the same known problems, according to known methods which would yield predictable results.

18. Claim 18

Invalidity of U.S. Patent 11,627,631 in view of TR 38.801 V0.4.0		
Claim Language		Exemplary Citations to TR 38.801 V0.4.0
18	The apparatus according to claim 17, wherein the transmission of the handover request message is performed through a direct interface associated with the target base station.	At least under Pegasus's apparent infringement theory, TR 38.801 V0.4.0 discloses wherein the transmission of the handover request message is performed through a direct interface associated with the target base station. For example, TR 38.801 V0.4.0 discloses this limitation based on the following exemplary citations: <i>See claim 6.</i> To the extent it is found that TR 38.801 V0.4.0 does not expressly disclose this limitation, the limitation is inherent. Moreover, to the extent it is found that TR 38.801 V0.4.0 does not anticipate this claim, TR 38.801 V0.4.0 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 TR 38.801 V0.4.0 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.