

FIG. 1

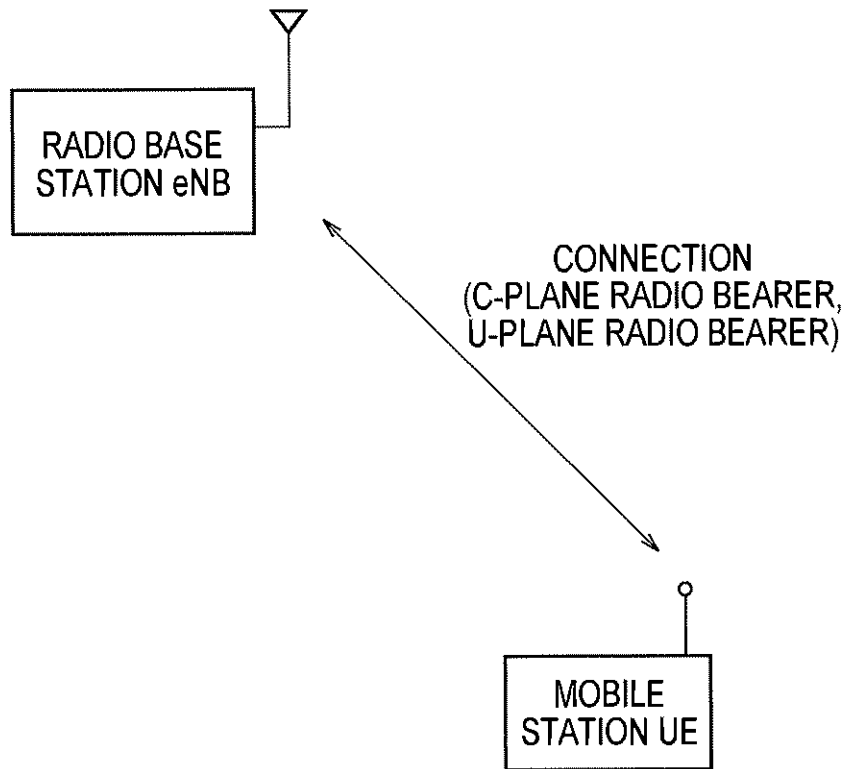


FIG. 2

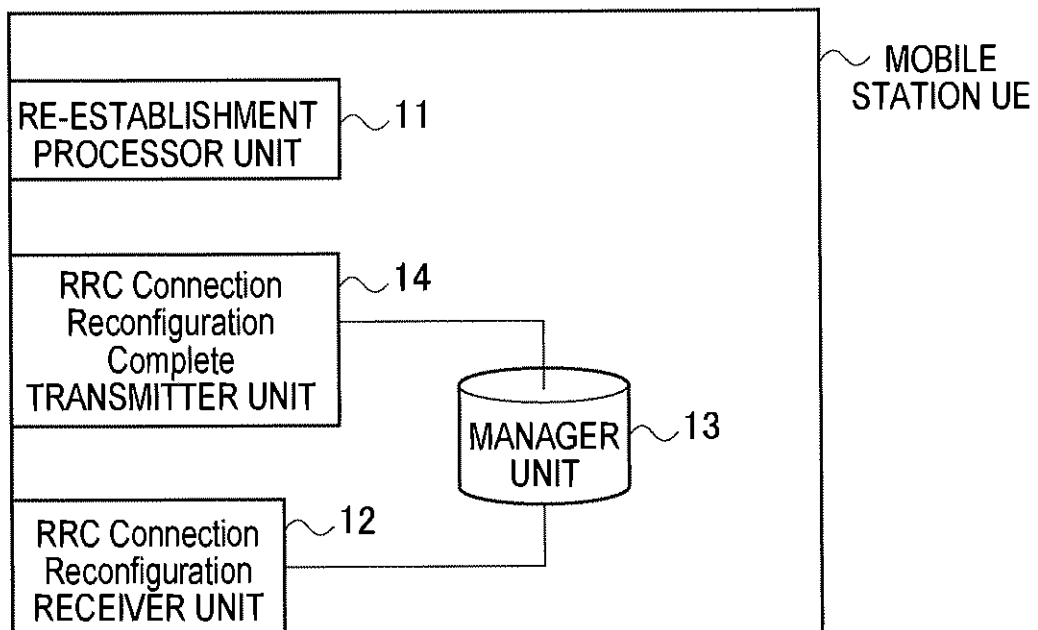


FIG. 3

— RRCConnectionReconfiguration

The RRCConnectionReconfiguration message is the command to modify an RRC connection. It may convey information for measurement configuration, mobility control, dedicated NAS information, radio resource configuration (including RBs, MAC main configuration and physical channel configuration), security configuration and UE related information.

Signalling radio bearer: SRB1

RLC-SAP: AM

Logical channel: DCCH

Direction: E-UTRAN to UE

RRCConnectionReconfiguration message

— ASN1START

```

RRCConnectionReconfiguration ::= SEQUENCE {
    rrc-TransactionIdentifier      RRC-TransactionIdentifier,
    criticalExtensions             CHOICE {
        cl                        CHOICE {
            rrcConnectionReconfiguration-r8      RRCConnectionReconfiguration-r8-IEs,
            spare7 NULL,
            spare6 NULL, spare5 NULL, spare4 NULL,
            spare3 NULL, spare2 NULL, spare1 NULL
        },
        criticalExtensionsFuture      SEQUENCE {}
    }
}

RRCConnectionReconfiguration-r8-IEs ::= SEQUENCE {
    measurementConfiguration      MeasurementConfiguration      OPTIONAL, -- Need ON
    mobilityControlInformation     MobilityControlInformation   OPTIONAL, -- Need OP
    nas-DedicatedInformationList   SEQUENCE (SIZE (1..maxDRB)) OF
                                     NAS-DedicatedInformation   OPTIONAL, -- Cond nonHO
    radioResourceConfiguration     RadioResourceConfigDedicated OPTIONAL, -- Need ON
    securityConfiguration          SecurityConfiguration        OPTIONAL, -- Cond HO
    nas-SecurityParamToEUTRA      OCTET STRING (SIZE (6))      OPTIONAL, -- Cond I-RATHO
    nonCriticalExtension           SEQUENCE {}                  OPTIONAL, -- Need OP
}

```

— ASN1STOP

RRCConnectionReconfiguration field descriptions

measurementConfiguration	This field specifies measurements to be performed by the UE, and covers intra-frequency, inter-frequency and inter-RAT mobility as well as configuration of measurement gaps.
mobilityControlInformation	This field includes parameters relevant for network controlled mobility to/within E-UTRA.
nas-DedicatedInformationList	This field is used to transfer UE specific NAS layer information between the network and the UE. The RRC layer is transparent for each PDU in the list.
radioResourceConfiguration	This field is used to setup/modify/release RBs, to setup/modify transport channel configurations and to setup/modify physical channels.
securityConfiguration	This field is used to configure AS integrity protection (CP) and AS ciphering (CP and UP) and to provide the next hop Chaining Count.
nas-securityParamToEUTRA	This field is used to activate NAS security after inter-RAT handover to E-UTRA. The content is defined in TS 24.301.

Conditional presence	Explanation
HO	The field is mandatory present if the IE MobilityControlInformation is present in the RRCConnectionReconfiguration message; otherwise the field is not applicable.
I-RATHO	The field is mandatory present in case of inter-RAT handover to E-UTRA; otherwise it is not applicable.
nonHO	The field is not applicable in case of handover within E-UTRA or to E-UTRA; otherwise it is optional present, continue.

FIG. 4

RadioResourceConfigDedicated

The IE RadioResourceConfigDedicated is used to setup/modify/release RBs, to setup/modify transport channel configurations and to setup/modify physical channels

RadioResourceConfigDedicated information element

-- ASN1START			
RadioResourceConfigDedicated ::=	SEQUENCE {		
srb-ToAddModifyList	SRB-ToAddModifyList	OPTIONAL,	-- need ON
drb-ToAddModifyList	DRB-ToAddModifyList	OPTIONAL,	-- need ON
drb-ToReleaseList	DRB-ToReleaseList	OPTIONAL,	-- need ON
mac-MainConfig	CHOICE {		
explicitValue	MAC-MainConfiguration,		
defaultValue	NULL		
}			-- Need ON
sps-Configuration	SPS-Configuration	OPTIONAL,	-- Need ON
physicalConfigDedicated	PhysicalConfigDedicated	OPTIONAL,	-- Cond Misc
...			
}			
SRB-ToAddModifyList ::=	SEQUENCE (SIZE (1..2)) OF SEQUENCE {		
srb-Identity	INTEGER (1..2),		
rlc-Configuration	CHOICE {		
explicitValue	RLC-Configuration,		
defaultValue	NULL		
}			-- Cond Setup
logicalChannelConfig	CHOICE {		
explicitValue	LogicalChannelConfig,		
defaultValue	NULL		
}			-- Cond Setup
...			
}			
DRB-ToAddModifyList ::=	SEQUENCE (SIZE (1..maxDRB)) OF SEQUENCE {		
eps-BearerIdentity	INTEGER (0..15)	OPTIONAL,	-- Cond DRB-Setup
drb-Identity	INTEGER (1..32),		
pdcp-Configuration	PDCP-Configuration	OPTIONAL,	-- Cond DRB-Setup
rlc-Configuration	RLC-Configuration	OPTIONAL,	-- Cond Setup
logicalChannelIdentity	INTEGER (3..10)	OPTIONAL,	-- Cond DRB-Setup
logicalChannelConfig	LogicalChannelConfig	OPTIONAL,	-- Cond Setup
...			
}			
DRB-ToReleaseList ::=	SEQUENCE (SIZE (1..maxDRB)) OF SEQUENCE {		
drb-Identity	INTEGER (1..32)		
}			
-- ASN1STOP			

RadioResourceConfigDedicated field descriptions

rlc-Configuration	SRB choice indicates whether the RLC configuration is set to the values signalled explicitly or to the values defined in the default RLC configuration for SRB1 in 9.2.1.1 or for SRB2 9.2.1.2 E-UTRAN does not reconfigure the RLC mode of DRBs.
pdcp-Configuration	E-UTRAN can reconfigure PDCP header compression for DRBs only when the PDCP re-establishment procedure is performed.
mac-MainConfig	The default MAC main configuration is specified in 9.2.2.
sps-Configuration	The default SPS configuration is specified in 9.2.3.
physicalConfigDedicated	The default dedicated physical configuration is specified in 9.2.4.
logicalChannelConfig [in SRB-ToAddModifyList]	For SRBs a choice is used to indicate whether the logical channel configuration is signalled explicitly or set to the values defined in the default logical channel configuration for SRB1 in 9.2.1.1 or for SRB2 in 9.2.1.2.
logicalChannelIdentity	The logical channel identity for both UL and DL.

Conditional presence	Explanation
DRB-Setup	The field is mandatory present if the corresponding DRB is being set up (including bearer setup at handover to E-UTRA); otherwise it is not applicable.
Setup	The field is mandatory present if the corresponding SRB/DRB is being set up; otherwise the field is optionally present, continue.
Misc	The field is mandatory present upon connection establishment, handover within E-UTRA, handover to E-UTRA and connection re-establishment; otherwise the field is optionally present, continue.

FIG. 5

- MeasurementConfiguration

The IE MeasurementConfiguration specifies measurements to be performed by the UE, and covers intra-frequency, inter-frequency and inter-RAT mobility as well as configuration of measurement gaps.

MeasurementConfiguration information element

-- ASN1START		
MeasurementConfiguration ::=	SEQUENCE {	
-- Measurement objects		
measObjectToRemoveList	MeasObjectToRemoveList	OPTIONAL, -- Need ON
measObjectToAddModifyList	MeasObjectToAddModifyList	OPTIONAL, -- Need ON
-- Reporting configurations		
reportConfigToRemoveList	ReportConfigToRemoveList	OPTIONAL, -- Need ON
reportConfigToAddModifyList	ReportConfigToAddModifyList	OPTIONAL, -- Need ON
-- Measurement identities		
measIdToRemoveList	MeasIdToRemoveList	OPTIONAL, -- Need ON
measIdToAddModifyList	MeasIdToAddModifyList	OPTIONAL, -- Need ON
-- Other parameters		
quantityConfig	QuantityConfig	OPTIONAL, -- Need ON
measGapConfig	MeasGapConfig	OPTIONAL, -- Need ON
s-Measure	RSRP-Range	OPTIONAL, -- Need ON
hrpd-PreRegistrationInfo	HRPD-PreRegistrationInfo	OPTIONAL, -- Need ON
neighbourCellConfiguration	NeighbourCellConfiguration	OPTIONAL, -- Need ON
speedDependentParameters	CHOICE {	
disable	NULL	
enable	SEQUENCE {	
mobilityStateParameters	MobilityStateParameters	
speedDependentScalingParameters	ConnectedModeSpeedDependentScalingParameters	
}		OPTIONAL, -- Need ON
}		
...		
MeasIdToRemoveList ::=	SEQUENCE (SIZE (1..maxMeasId)) OF SEQUENCE {	
measId	MeasId	
}		
MeasIdToAddModifyList ::=	SEQUENCE (SIZE (1..maxMeasId)) OF SEQUENCE {	
measId	MeasId	
measObjectId	MeasObjectId	
reportConfigId	ReportConfigId	
}		
MeasObjectToRemoveList ::=	SEQUENCE (SIZE (1..maxObjectId)) OF SEQUENCE {	
measObjectId	MeasObjectId	
}		
MeasObjectToAddModifyList ::=	SEQUENCE (SIZE (1..maxObjectId)) OF SEQUENCE {	
measObjectId	MeasObjectId	
measObject	CHOICE {	
measObjectEUTRA	MeasObjectEUTRA	
measObjectUTRA	MeasObjectUTRA	
measObjectGERAN	MeasObjectGERAN	
measObjectCDMA2000	MeasObjectCDMA2000	
}		
}		
ReportConfigToRemoveList ::=	SEQUENCE (SIZE (1..maxReportConfigId)) OF SEQUENCE {	
reportConfigId	ReportConfigId	
}		
ReportConfigToAddModifyList ::=	SEQUENCE (SIZE (1..maxReportConfigId)) OF SEQUENCE {	
reportConfigId	ReportConfigId	
reportConfig	CHOICE {	
reportConfigEUTRA	ReportConfigEUTRA	
reportConfigInterRAT	ReportConfigInterRAT	
}		
}		
-- ASN1STOP		

MeasurementConfiguration field descriptions
measObjectToRemoveList List of measurement object to remove.
measObjectToAddModifyList List of measurement object to add/modify.
measObjectId Used to identify a measurement object configuration.
measObject Specifies measurement object configurations for E-UTRA, UTRA, GERAN, or CDMA2000 measurements.
reportConfigToRemoveList List of measurement reporting configurations to remove.
reportConfigToAddModifyList List of measurement reporting configurations to add/modify.
reportConfigId Used to identify a measurement reporting configuration.
reportConfig Specifies measurement reporting configurations for E-UTRA, UTRA, GERAN, or CDMA2000 measurements.
measIdToRemoveList List of measurement identities remove.
measIdToAddModifyList List of measurement identities to add/modify.
measId Used to link a measurement object to a reporting configuration.
quantityConfig Specifies measurement quantities for UTRA, GERAN, or CDMA2000 and L3 filtering coefficients for E-UTRA, UTRA or GERAN measurements.
measGapConfig Used to configure measurement gap pattern and control activation/deactivation of measurement gap.
s-Measure Serving cell quality threshold controlling whether or not the UE is required to perform measurements of intra-frequency, inter-frequency and inter-RAT neighbouring cells.
hrpd-PreRegistrationInfo The HRPD Pre-Registration Information tells the UE if it should pre-register with the HRPD network and identifies the Pre-registration zone to the UE.

FIG. 6

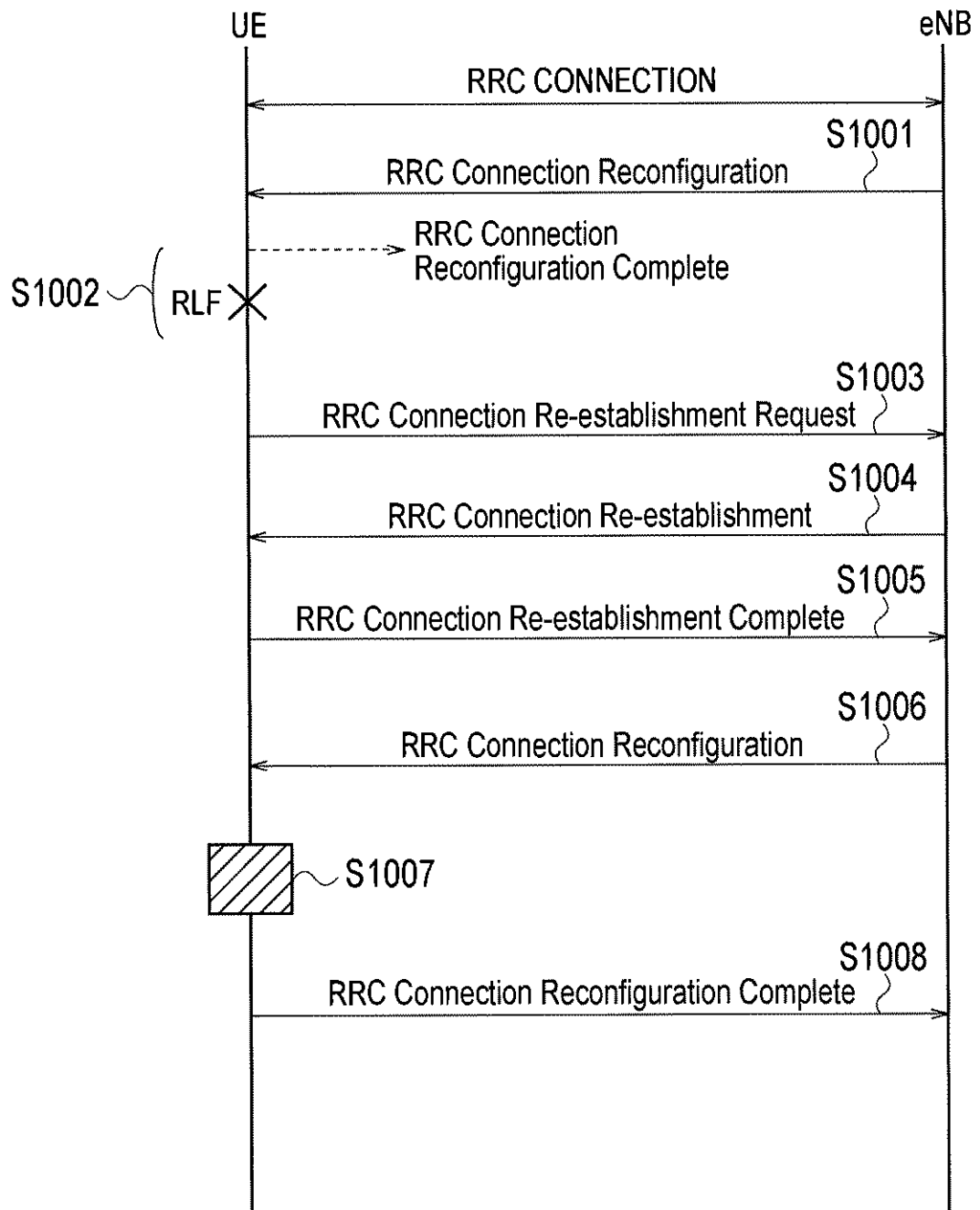


FIG. 7

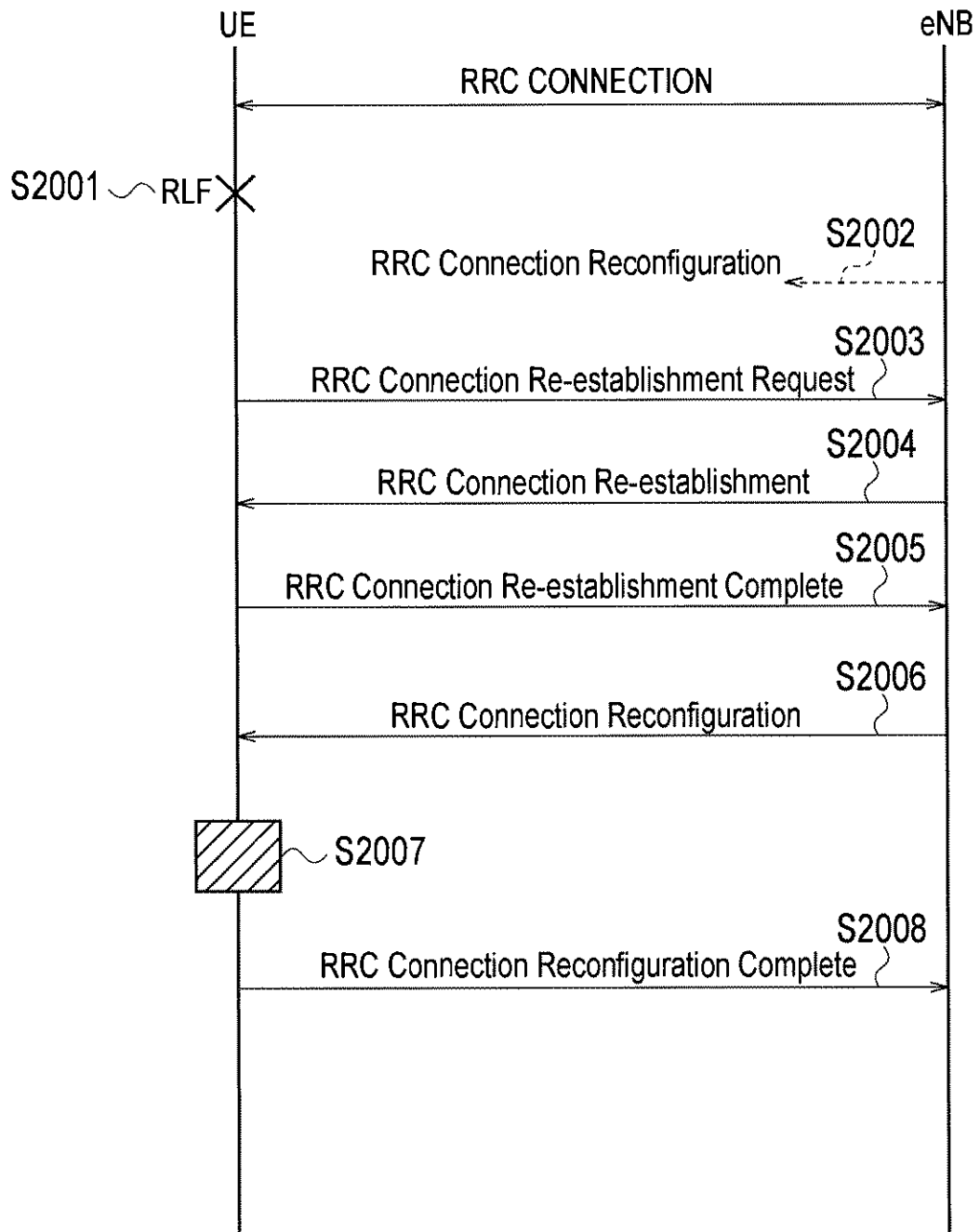


FIG. 8

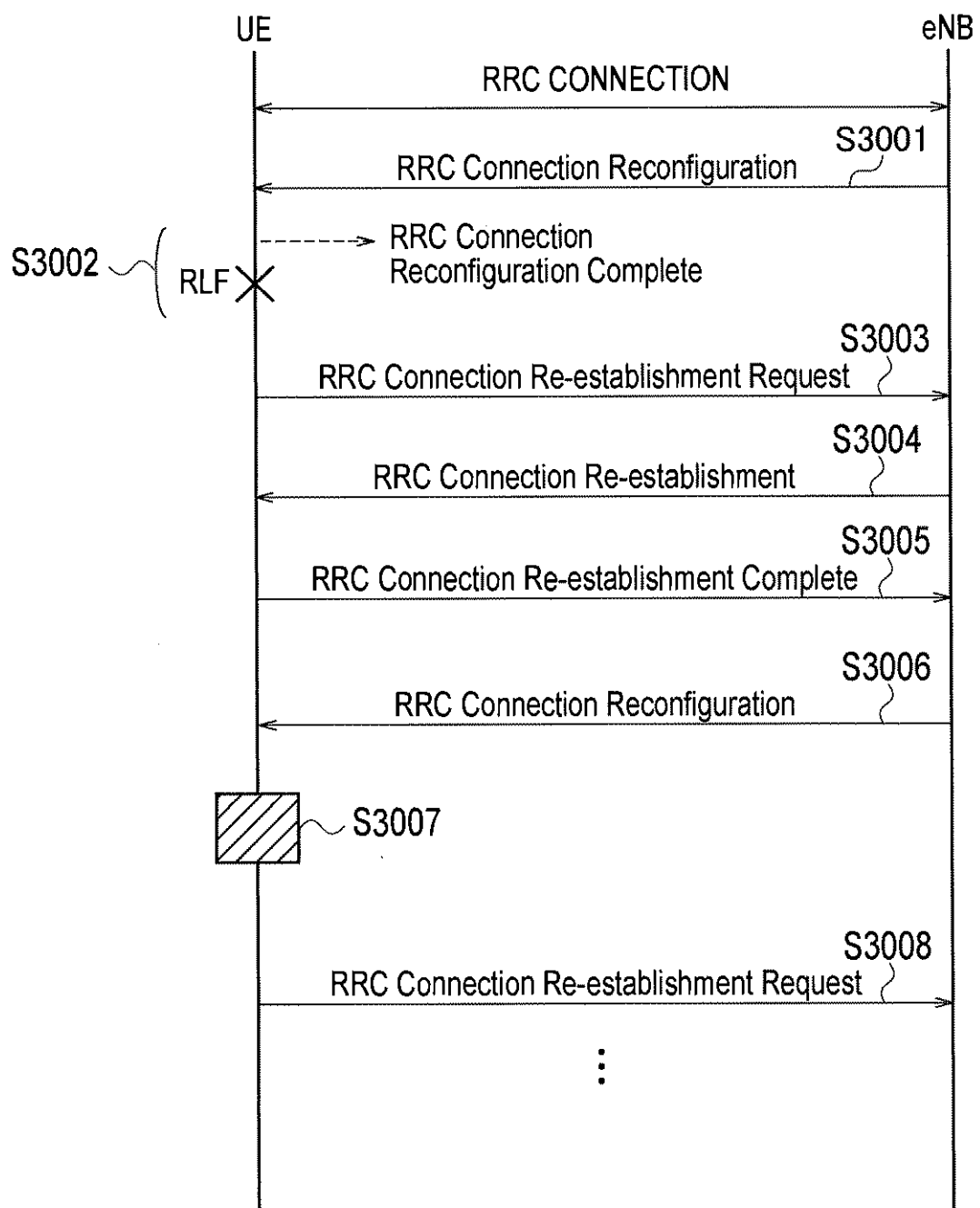


FIG. 9

