9.3.2 Paging procedure

9.3.2.1 Paging procedure

9.3.2.1.1 Test Purpose (TP)

(1)

```
with { UE in ECM-IDLE }
ensure that {
  when { the network initiates a paging procedure for EPS services using S-TMSI }
    then { the UE responds to the paging with a SERVICE REQUEST message providing correct S-TMSI in
the RRCConnectionRequest }
            }
```

9.3.2.1.2 Conformance requirements

References: The conformance requirements covered in the current TC are specified in: TS 24.301, clauses 5.6.1.1, 5.6.2.2.1, TS 33.401 clause 7.2.6.2, TS 36.331 clause 5.3.3.3.

[TS 24.301, clause 5.6.2.2.1]

To initiate the procedure the EMM entity in the network requests the lower layer to start paging (see 3GPP TS 36.300 [20], 3GPP TS 36.413 [23]) and starts the timer T3413 for this paging procedure. Upon reception of a paging indication, the UE shall respond to the paging with a SERVICE REQUEST message (see 3GPP TS 23.401 [10] and 3GPP TS 36.413 [23]). If the paging for EPS services was received during an ongoing UE initiated EMM specific procedure or service request procedure, then the UE shall ignore the paging and the UE and the network shall proceed with the EMM specific procedure or the service request procedure.

[TS 24.301, clause 5.6.1.1]

The UE shall invoke the service request procedure when:

a) the UE in EMM-IDLE mode receives a paging request with CN domain indicator set to "PS" from the network;

[TS 33.401 clause 7.2.6.2]

The procedure the UE uses to transit from ECM-IDLE to ECM-CONNECTED when in EMM-REGISTERED state is initiated by a NAS Service Request message from the UE to the MME. As the UE is in EMM-REGISTERED state, a EPS security context exists in the UE and the MME, and this EPS security context further contains uplink and downlink NAS COUNTs. The NAS Service Request message sent in EMM-REGISTERED shall be integrity protected and contain the uplink NAS sequence number.

[TS 36.331, clause 5.3.3.3]

The UE shall set the contents of *RRCConnectionRequest* message as follows:

1> set the *ue-Identity* as follows:

2> if upper layers provide an S-TMSI:

3> set the *ue-Identity* to the value received from upper layers;

9.3.2.1.3 Test description

9.3.2.1.3.1 Pre-test conditions

System Simulator:

- cell A.

UE:

- none.

Preamble:

- the UE is in Registered, Idle Mode (state 2) according to TS 36.508 [18].

9.3.2.1.3.2 Test procedure sequence

Table 9.3.2.1.3.2-1: Main behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	SS pages the UE using S-TMSI with CN domain indicator set to "PS"	-	-	-	-
2	Check: Does the UE transmit *RRCConnectionRequest* message providing correct S-TMSI?	-	-	1	P
3	Check: Does the UE respond with a SERVICE REQUEST message?	-->	SERVICE REQUEST	1	P
4-7	Steps 6 to 9 of the generic radio bearer establishment procedure (TS 36.508 4.5.3.3-1) are executed to successfully complete the service request procedure.	-	-	-	-

9.3.2.1.3.3 Specific message contents

Table 9.3.2.1.3.3-1: *RRCConnectionRequest* (step 2, Table 9.3.2.1.3.2-1)

Derivation Path: Table 4.6.1-16			
Information Element	**Value/remark**	**Comment**	**Condition**
RRCConnectionRequest ::= SEQUENCE {			
criticalExtensions CHOICE {			
rrcConnectionRequest-r8 SEQUENCE {			
ue-Identity[1] CHOICE {			
s-TMSI	Set to the value of the S-TMSI of the UE		
}			
}			
}			
}			

9.3.2.2 Paging for CS fallback / Idle mode

9.3.2.2.1 Test Purpose (TP)

(1)

```
with { UE in state EMM-REGISTERED and EMM-IDLE mode}
ensure that {
  when { UE received Paging for mobile termination CS fallback from NW }
   then { UE establishes the RRC connection with the RRC establishmentCause set to 'mt-Access' and
sends EXTENDED SERVICE REQUEST message }
            }
```

9.3.2.2.2 Conformance requirements

References: The conformance requirements covered in the present TC are specified in: 3GPP TS 24.301 clauses 5.3.1.1, 5.6.1.1, 5.6.2.3 and Annex D and TS 36.331 clause 5.3.3.3.

[TS 24.301 clause 5.3.1.1]

When the UE is in EMM-IDLE mode and needs to transmit an initial NAS message, the UE shall request the lower layer to establish a NAS signalling connection. In this request to the lower layer the NAS shall provide to the lower layer the RRC establishment cause and the call type as specified in annex D of this specification.

[TS24.301 clause5.6.1.1]